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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR 1995

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HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS

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DELACROIX DAVIS III, RICHARD E. EFFORD, CHERYL L. SMITH, and LINDA J. MUIR,
Subcommittee Staff

PART 3

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Federal Transit Administration 649
RELATED AGENCY:
Washington Metropolitan Area Transit Authority .. 897

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR 1995

TUESDAY, MARCH 8, 1994.

FEDERAL HIGHWAY ADMINISTRATION

WITNESSES

U.S. GENERAL ACCOUNTING OFFICE

KENNETH M. MEAD, DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION
GARY JONES, ASSISTANT DIRECTOR FOR SURFACE TRANSPORTATION INFRASTRUCTURE
MIRIAM ROSKIN, EVALUATOR, SURFACE TRANSPORTATION INFRASTRUCTURE ISSUES

FEDERAL AVIATION ADMINISTRATION

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GLORIA J. JEFF, ASSOCIATE ADMINISTRATOR FOR POLICY
JOHN A. CLEMENTS, ASSOCIATE ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT
ANTHONY R. KANE, ASSOCIATE ADMINISTRATOR FOR PROGRAM DEVELOPMENT

OPENING REMARKS

Mr. CARR. The Committee will come to order.

Today we are going to discuss programs and activities of the Federal Highway Administration. In terms of the total program resources and outlays, the FHWA is the largest element of the Department of Transportation.

The FHWA budget for fiscal year 1995 is approximately $20 billion in budgetary resources, representing more than 50 percent of the total requested by the Department. Obviously, with a program that large, there are many issues to be explored.

We will start today with testimony from the General Accounting Office, presented by Mr. Kenneth Mead, the Director for Transportation Issues in the Resources, Community and Economic Development Division. We value his observations and analysis. And following the GAO testimony and any related questions, we will hear from the officials of the Federal Highway Administration, led by Rodney Slater, the Administrator, making his first formal appearance before the Subcommittee, but he has been very helpful to us since he has come on board.

And Mr. Mead, of course, we are always delighted to see you. You have given this Committee so much advice and counsel over the years, particularly in the area of the Federal Aviation Administration and, at our request, we have asked you to take a look at the entire Department. We understand what a workload increase that is for you, but we appreciate the time and attention you give to this Committee's concerns.

Mr. Mead.

GAO STATEMENT

Mr. MEAD. Thank you, Mr. Chairman.

I would say it is a customary start at these affairs to say thank you for the opportunity to appear today. I guess it is deja vu from last year. You get into these appropriations cycles and the hearings can get rather intense, but thank you for your remarks.

With me today is Gary Jones, our Assistant Director for Surface Transportation Infrastructure, and Miriam Roskin on my left. Miriam has mastered the ins and outs of how demonstration projects work in the Highway Trust Fund and that is a complicated area indeed.

I will cover four issues today. First is the $400 million imbalance in the fiscal year 1995 FHWA budget; second, a demonstration project tracking system that flows from the number of issues that developed last year; third, life-cycle costing; and, fourth, the proposed National Highway System.

FHWA BUDGET IMBALANCE

I would like to turn first to the budget imbalance. The Administration's budget for the Federal Highway Administration proposes full funding of $18 billion for the core highway programs, like the National Highway System. But full funding is contingent on zeroing out most highway demonstration projects by the device of rescission. This would rescind budget authority of about $3 billion through fiscal year 1995.

A problem exists, though, because the Administration did not send forward the documents needed to execute the rescissions in the very budget that it proposed. As it stands, without the $3 billion rescission, the annual outlay levels imposed to control the deficit will be exceeded by $406 million. The disconnect between the $3 billion and the $406 million is due to the slow spendout rate for highway programs.

Well, there are four basic options to deal with this problem. Assuming that a rescission letter is not forthcoming from the Administration—and we have no reason to believe that a rescission letter will in fact be forthcoming—the first option is to request higher DOT outlay levels from the full Appropriations Committee than are assumed in the President's budget. That would result in nontransportation reductions elsewhere.

Well, that is the option recommended by the Budget Committee, which through a set of outlay assumptions and cuts elsewhere in the budget, would eliminate the subcommittee's $400 million problem.

Now, if the Budget Committee recommendation, which we have not seen in writing, Mr. Chairman, is not accepted by the full Appropriations Committee, then the subcommittee will have to resort to more painful solutions and there are basically three of them.

The first is to fully fund core highway programs and demonstration projects by making sizable reductions in other transportation programs, like Amtrak, mass transit and aviation. There might be some room for movement in those other accounts, but being familiar with them, I know that the knife cannot go too deep there either.

A second option is to fund the demonstration projects but reduce highway obligations for the core programs, like the National Highway System, by up to $2.7 billion. That would translate into about $400 million in outlay savings in fiscal year 1995.

And a final but fairly complicated one is to place a severe obligation limitation on demonstration projects, coupled with eliminating the fiscal year 1994 bonus for timely obligations. In the highway programs, states get a bonus if they obligate all their money.

Well, obviously, these options can be used individually or in combination. And I hope you do not have to resort to the more painful ones that I outlined.

TRACKING DEMONSTRATION PROJECTS

This subcommittee's interest in ensuring that demonstration projects are a sound investment illustrates the continuing need for accurate project-specific information on the projects. Actually, there are about a thousand of these projects out there now.

FHWA does not currently track the financial and construction status of individual demonstration project authorizations. Projects authorized under ISTEA collectively account for well over $6 billion. Tracking demos cannot be ignored because, as we have previously noted, demos can run into problems that cause them to languish or never get started at all. To identify such problems, though, FHWA is currently designing a system to better capture information on individual projects. The development of this tool is encouraging and we have been working with FHWA on it.

We have identified several areas to further enhance the system. One is to capture information on the reasons for delays. The second is to require periodic updates of the information in the system.

Once the system is up and running, which is now scheduled for August 1994, this subcommittee and the Public Works Committee will be in a far better position to make judgments about the future of those projects.

LIFE-CYCLE COSTING

I would like to comment on life-cycle costing. In my frame of reference, the issue really can be illustrated by the 14th Street Bridge, and whether you make repairs that will last for a relatively short-duration or whether you make repairs that will last for a longer period of time.

In any event, nearly $50 billion is needed now and will be annually through 2011 just to maintain the condition and performance of the Federal-aid system. That investment is nearly double what we outlay each year, which is in the neighborhood of $26 billion. Life-cycle costing could be used to help ensure that dollars spent are spent in the most cost-effective way.

Selecting a project or repair technique based on the lowest initial cost may save dollars in the short term, but that decision could end up costing more over the life of the project. And what life-cycle costing is all about is requiring an analysis of costs over the life of a project, not just the initial costs.

States sometimes are overlooking the life-cycle analysis device when evaluating pavement rehabilitation strategies. The American Association of State Highway and Transportation Officials (AASHTO) did a survey last year, Mr. Chairman. Thirty-eight States responded. Of the 38, 11 said they do not use life-cycle cost analysis in making highway investment decisions.

Also, when life-cycle analysis is performed, the assumptions used vary widely among the States. For example, some States will include the cost of maintenance in doing their analysis and others will not. We think FHWA needs to provide technical guidance on when life-cycle analysis should be performed and how to do it.

NATIONAL HIGHWAY SYSTEM

I would like to close with a few remarks on the National Highway System. In December, DOT unveiled the proposed National Highway System of about 159,000 miles. Congress must approve the designation of the National Highway System. The National Highway System is going to handle about 40 percent of all vehicle miles traveled, and 70 percent of all truck traffic. Ninety-eight percent of the 159,000 miles is already built and it represents about 4 percent of the public road mileage in the U.S.

We think DOT and the States did a good job in designing the system. We have two refinements that in our judgment could strengthen it further. First, as you know, a well-maintained and preserved system ought to form the foundation of the NHS, which in turn will support a myriad of other NHS goals, like clean air, congestion relief, economic development, tourism, trade and so forth. But those NHS goals may remain barren unless you establish performance expectations for the NHS system.

One possible expectation relates to pavement condition. Forty-six percent of noninterstate urban highways are considered in good condition. That means that over 50 percent are considered in less than good condition. Now, is that acceptable or not? Do we want it to be better than that? I think so, and that is why we are suggesting to the Department that they establish performance expectations.

The other recommendation we are making relative to the NHS is that Congress consider conditionally approving the NHS as submitted by DOT and reserve for itself the right to approve the final designation. The reason for this recommendation is that a principal purpose of the NHS was to link major transportation systems with our major highway systems. That has not been done yet. Over the next two years, DOT is going to be about the task of identifying those linkages. We feel that after the linkages are finalized, DOT could submit to the Congress the additional 6,000 miles or so that they are going to recommend be designated.

We will be glad to take any questions, Mr. Chairman.

[The prepared statement of Kenneth Mead follows:]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Transportation,
Committee on Appropriations,
United States House of Representatives

For Release on Delivery
Expected at
10:00 a.m. EST
Tuesday
March 8, 1994

SURFACE TRANSPORTATION

Tight Budget Environment Requires Sound Investment Strategy

Statement of Kenneth M. Mead,
Director, Transportation Issues,
Resources, Community, and Economic
Development Division

Mr. Chairman and Members of the Subcommittee:

We are pleased to have this opportunity to testify on several issues affecting federal investment in our highway infrastructure on the basis of our past and ongoing work. At the federal level, deficit reduction concerns continue to weigh heavily on decisions about funding levels for transportation programs, as well as other federal programs, such as education and health care. Investment choices concerning transportation infrastructure are also becoming increasingly complex as the National Highway System (NHS) is being designated and decision-makers seek to ensure that every transportation dollar is spent in a cost-effective manner.

Our testimony today will address (1) a $406-million imbalance in the fiscal year 1995 Federal Highway Administration (FHWA) budget, (2) the need for an FHWA project tracking system capable of providing status information on individual highway demonstration project authorizations, (3) the variability of states' use of life-cycle cost analysis as a means of maximizing our highway investments, and (4) the need for key refinements to the proposed NHS. In summary:

-- The administration's fiscal year 1995 FHWA budget request proposes full funding of the core federal-aid highway programs, such as the NHS, as authorized under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). In fiscal year 1995, full funding would translate into core program obligations of $18.3 billion.[1] In the administration's budget, full funding is dependent on the assumption that highway demonstration projects will be nearly zeroed out through rescissions of budget authority.[2] However, the administration has not sent forward documents needed to propose such rescissions. If the rescissions do not occur, the administration projects that obligation levels specified in the budget request for core programs will result in spending that exceeds the governmentwide spending cap that is imposed annually to control the federal deficit by $406 million for fiscal year 1995. If the needed savings are to be achieved through cuts in the highway program, fiscal year 1995 highway obligations would have to be reduced by about $2.7 billion. (The magnitude of the reduction results from the slow-spending nature of highway programs, in which a dollar obligated today translates into actual spending over a number of years.) If highway programs are not reduced, severe reductions in other transportation programs, or elsewhere in the administration's budget, could be needed to bridge the projected gap.

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[1] Additional obligations for other highway programs would bring the total fiscal year 1995 obligation limitation for federal-aid highways to $19.969 billion.

-- FHWA does not track the financial and construction status of individual highway demonstration project authorizations, which number over 1,000 and collectively account for billions of federal dollars. Funds authorized for demonstration projects are available until expended--but only for the specific project for which they were authorized. Since our work has shown that some of these projects languish in early project development or never get started at all, individual project status is important to identify projects that are stalled or no longer needed. FHWA is developing a system to capture information on individual project authorizations, and working with them, we have identified two needed system refinements. FHWA officials have agreed that (1) obtaining reasons for project delays and (2) requiring at least annual updates of project information could further enhance the system's utility as a decision-making tool. FHWA estimates system implementation will be completed August 31, 1994.

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[2] Demonstration, or special, projects are generally specific construction projects identified by name in legislation.

-- Life-cycle costing can help to ensure that limited capital dollars are spent effectively by analyzing all future costs expected to occur over a highway's useable life, rather than just initial costs. Approximately $50 billion is needed now and will be annually by all levels of government through the year 2011 just to maintain the condition and performance of federally funded highways. This investment is nearly double the actual capital outlay of $26 billion for federally funded highways in 1991, thus it becomes critical that the investments made are cost-effective ones. Life-cycle costing can help in this regard, however, states at times overlook this pivotal tool in determining cost-effective investments, or exclude it from consideration when evaluating pavement rehabilitation strategies.

-- While the transportation community has made progress in developing a NHS, two factors could improve it even further. First, performance expectations related to the myriad of goals for the NHS, particularly in the areas of maintenance and improvements to pavement and bridge conditions, have not been established. Such expectations are particularly important given that FHWA data shows that only about 46 percent of the pavement is in good condition for principal nonInterstate highways in urban areas--a major component of the NHS. Without setting expectations for what a well-maintained system is, system enhancements such as alleviating congestion and improving the efficient movement of goods may not be fully realized. Second, the accomplishment of one of the major purposes of the NHS--connecting NHS roads with other transportation modes, such as ports, airports, and public transit--is not expected to be completed until 1997. In our testimony last week before the House Public Works and Transportation Committee's Surface Transportation Subcommittee, we suggested that congressional approval of the NHS be conditional upon later review of these connections by the Congress.[3]

We will now address these points in greater detail.

FISCAL YEAR 1995 BUDGET PRESENTS PRESSING FUNDING DILEMMA

The President's fiscal year 1995 budget calls for full funding of the core federal-aid highway programs as authorized under ISTEA, resulting in obligations of $18.3 billion for these programs. As defined by FHWA, the core programs are those for which funds are distributed to all states by formula, including the Surface Transportation Program, the NHS, and Interstate Maintenance. In the administration's budget, full funding is only possible if another component of the federal-aid highway program, demonstration projects, is nearly eliminated. If demonstration projects are not rescinded or other actions taken, the administration projects that resulting fiscal year 1995 FHWA outlays will cause total federal outlays to exceed by $406 million the fiscal year 1995 cap on outlays.

Fully Funding Core Programs Assumes Demonstration Project Rescissions

Each year, FHWA and other federal agencies must abide by a statutory annual outlay cap designed to control the federal deficit.[4] While the President's budget assumes certain outlay levels for individual agencies, during the appropriations process, the Congress may either accept the mix of levels incorporated in the President's budget or allot a different mix of outlay levels among individual government agencies, as long as they stay within the overall governmentwide cap.

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[3] National Highway System: Refinements Would Strengthen the System, (GAO-T-RCED-94-136, Mar. 1994).

[4] Budget Enforcement Act of 1990, Public Law No. 101-508, as amended.

Under the fiscal year 1995 outlay level assumed by the administration for FHWA, fully funding core highway programs as proposed in the President's budget is only possible if obligations and resulting outlays in other areas are reduced. The fiscal year 1995 budget assumes that unobligated budget authority for demonstration projects would be rescinded. Rescissions of prior years' budget authority affect current and future years' outlays because of the nature of highway programs.

In brief, highway construction activities tend to span a number of years, so obligations and outlays typically occur some years after initial project authorization. For example, for demonstration projects authorized under ISTEA, funds are allocated to the states over 6 years. After the allocation of a given year's demonstration project funds, states are usually free to obligate as much of their allocated demonstration project funding as they wish. However, on the basis of historical state behavior, states on average only choose to obligate about 26 percent of demonstration project funding available through that year. The remainder of the year's funds are obligated in subsequent years.

Funds are outlayed at an even slower pace, as typically only 15 percent of the funds obligated in a given year are actually outlayed in that same year. The remaining 85 percent of the funds obligated in that year translate into actual federal outlays in future years.

Through fiscal year 1995, the President's budget assumed the rescission of about $3 billion in authorized demonstration project funding that has not yet been obligated.[5] As noted above, authorizations translate into outlays over a number of years into the future. Because of this characteristic of the highway program, under administration estimates, the total $3 billion rescission is estimated to result in $406 million in outlay savings in fiscal year 1995, with remaining outlay savings projected to occur in subsequent years. It is the projected $406 million in fiscal year 1995 outlay savings that permit FHWA to propose full funding of the core programs while still staying within the agency's fiscal year 1995 outlay level proposed by the administration.

Demonstration Project Rescissions Not Reflected in Administration Actions

Despite the apparent outlay savings built into the President's budget, a disconnect exists between the budget's presumption that unobligated demonstration project funding is to be rescinded and the lack of an official rescission request letter from the administration to the Congress.[6] To address the disconnect, the White House proposed a budget amendment on February 8, 1994, that would to give the Secretary of Transportation the authority to reduce total fiscal year 1994 obligations sufficiently to bridge the $406 million gap in outlays projected for fiscal year 1995.

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[5] Of the $3 billion total assumed rescission, $2.2 billion represents funding authorized but not obligated during fiscal years 1991 through 1994, and about $800 million in demonstration project funds authorized for fiscal year 1995. Projects authorized under ISTEA as well as projects authorized under various appropriations acts are affected.

[6] The Impoundment Control Act of 1974 provides for the President to propose that funds be rescinded and permits such funds to be withheld for up to 45 days while the Congress determines whether to enact the rescissions. If the Congress does not enact the rescissions within 45 days, any withheld funds must be released.

Budget analysts with whom we spoke, however, do not consider this budget amendment an adequate means of solving the imminent FHWA outlay predicament. The amendment provides no particulars on what types of specific categories of highway funding are to be affected, nor in what amounts. According to Congressional Budget Office (CBO) analysts, the language incorporated in the budget amendment is not sufficient to ensure that agency action in fiscal year 1994 will be adequate to solve the $406 million imbalance in the President's fiscal year 1995 budget for FHWA. Instead, definitive legislative language to yield spending levels that comply with the fiscal year 1995 outlay cap is needed.

Potential Means to Address Budget Imbalance

The $406 million in excess outlays that are incorporated in the fiscal year 1995 budget place this Subcommittee in a difficult position. Options for addressing this imbalance are somewhat limited. They include the following.

-- Under one option, the Subcommittee could seek to obtain higher Department of Transportation outlay levels from the full Appropriations Committee than are assumed in the President's budget. The advantage of this approach is that it would essentially enlarge the total transportation pie, permitting full funding of all aspects of the federal-aid highway program, including demonstration projects, without taking anything away from other transportation modes covered by the Department's allocation. The downside of this approach is that it would reduce outlay authority available for other discretionary uses, such as agriculture or education programs.

-- A second option available to the Subcommittee would be to fund demonstration projects, as well as to fully fund the core federal-aid highway programs, by means of drawing funds away from other activities within the jurisdiction of the

Transportation Subcommittee--areas such as aviation, mass transit, highway safety, rail, and maritime programs.

-- A third option would be to constrain obligations for the core federal-aid highway programs by reducing the obligation limitation. This would result in funding for demonstration projects, though obligations for the core programs would have to be reduced by as much as $2.7 billion to achieve the needed outlay savings for fiscal year 1995 under CBO estimates.

-- Fourth, funding available for obligation could be reduced through means other than the obligation limitation. For example, if the 1994 bonus for timely obligations were eliminated, outlay savings of about $90 million could be realized in fiscal year 1995.[7] Over $300 million in needed outlay savings for fiscal year 1995 could be achieved if each state were to obligate no more than 13 percent of the funding it receives for demonstration projects in fiscal year 1994 and fiscal year 1995. Thirteen percent is one-half of the 26 percent of allocated funding that the Office of Management and Budget estimates is obligated annually, on average across all states, for demonstration projects. One downside of this approach is that constraining obligations in no way reduces total funding that federal coffers are ultimately obliged to provide to the states. Thus, constraining obligations in the short-term simply shifts the commitment to provide states their shares of authorized funding and resulting outlays into future years.

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[7] In any given year, not all states obligate their entire share of the annual obligation limitation. To ensure that total available obligational authority is used, authorizing legislation provides for the August 1 redistribution of unused obligational authority to those states that are able to obligate more than their initial share of the total limitation. Additionally, under certain circumstances, states can receive a bonus that permits them to obligate additional funds. The total bonus nationally cannot exceed 2.5 percent of the total obligation limitation for the year in question.

While none of the four options noted above is without pain, the fact is that without the rescissions assumed in the administration's budget, the Subcommittee faces difficult choices. The pain of each option might be partially mitigated, however, by the fact that the options are not mutually exclusive. If the Subcommittee fashions a solution that blends two or more of the options to achieve total required outlay savings, each option used could be implemented in a less radical fashion. For example, if the option to reduce the obligation limitation for core highway programs (Option 3) was used in conjunction with the option to restrict obligations for demonstration projects (Option 4), the constraints imposed on obligations for each program group could be less severe than would be the case if either option was used in isolation.

IMPROVED TRACKING OF INDIVIDUAL DEMONSTRATION PROJECT STATUS CAN SUPPORT DECISION-MAKING PROCESS

As we have stated in a previous report and testimony, highway demonstration projects frequently encounter difficulties that can cause them to languish in early project development stages or never get started at all.[8] If projects that are of a low priority and/or stalled are to be considered potential candidates for rescission, project information capable of evidencing these characteristics is essential. However, FHWA's current system to fiscally manage demonstration projects neither provides complete and up-to-date information on the status of individual project authorizations, nor contains sufficient management controls. We have been working with the agency to remedy the lack of project-specific information.

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[8] Highway Demonstration Projects: Improved Selection and Funding Controls Are Needed (GAO/RCED-91-146, May 1991); Surface Transportation: Funding Limitations and Barriers to Cross-Modal Decision Making (GAO/T-RCED-93-25, Mar. 1993).

Demonstration projects authorized under the 1991 ISTEA alone number 539 and account for budget authority totaling $6.2 billion. Additional projects have also been authorized by annual appropriation laws and past authorizing legislation, such as the 1987 Surface Transportation and Uniform Relocation and Assistance Act, bringing the total number of projects to over 1,000. FHWA currently does not have a comprehensive system to tag individual project authorizations and regularly track their progress from authorization, to obligation, to completion. Without such a system, neither FHWA nor the Congress has the means to obtain accurate and timely information on dollars spent on individual projects as well as the projects' status. Thus, project-specific information is not readily available to support or refute potential demonstration project rescissions.

Project-specific tracking is also needed in order to avert a potential internal controls problem. Funds authorized for demonstration projects are generally targeted to specific, individual projects; the funds cannot be used for other purposes. However, under FHWA's current fiscal management system, projects are tracked in groups, as they are coded by overall account number instead of a unique project number. In the case of ISTEA, groups of demonstration projects such as "Congestion Relief Projects" or "High Cost Bridge Projects" appear under one legislative section, and FHWA tracks the projects by category, by state. Thus, because one state received eight projects under the "Congestion Relief" heading, all these projects are lumped together under one such accounting code for the purpose of tracking. Given this amalgamated approach to tracking, the existing system does not have the capacity to recognize if a state has obligated more funds for an individual project than the project had been allocated. This outcome could occur if funds allocated for another project within the same accounting code were used.

Given congressional interest in projects' status, FHWA recognized the need for improvements in the agency's capacity to track and report on individual projects. FHWA is developing a system that will have the ability to track projects by individual identification numbers as well as by associated public law and section numbers. This capability will address the internal controls concern. The system will further provide project descriptions; information on amounts of funding authorized, allocated, and obligated; estimated date of project construction; and status of project construction.

The agency currently expects to have computer programming and data entry completed by early July 1994, with full implementation by August 31, 1994. Early indications are that the tracking system will provide critically needed information on demonstration projects' financial status. Working with FHWA staff, however, we identified two key system refinements that can enhance the system's utility as a decision-making tool. First, capturing information on the reasons for any project delays--such as citizen opposition or potential project intrusion on wetlands--would assist decision-makers in understanding why given projects might be lying idle over a span of time. Delays might be defined under a variety of formulations, but one likely candidate would be to tag a project for closer scrutiny if no activity or obligations occurred over a 12-month period. Second, updates of project status information need to be made at least once a year in order to ensure that information is current and comprehensive. FHWA has indicated that the agency intends to follow through with such improvements.

LIFE-CYCLE COSTING: AN UNDERUTILIZED TOOL

Approximately $50 billion will be needed annually by all levels of government through the year 2011 to maintain the condition and performance of federally funded highways, according to FHWA estimates. This investment need is nearly double the actual capital outlay of $26 billion for construction and capital maintenance of federally funded highways in 1991. Therefore, it is critical that the investments made are cost-effective. A pivotal tool--life-cycle cost analysis--for assuring such cost-effective investments, however, is at times overlooked by states or its utility is handicapped because considerations, such as maintenance and user costs, are not analyzed. Furthermore, attention is increasingly turning from constructing new highways to maintaining existing ones. Although life-cycle cost analysis could play a vital role in choosing the most cost-effective repair strategies, it is often not used for this purpose.

A life-cycle cost analysis ensures that the selection of highway designs is not based solely on initial costs but instead considers all the future costs expected to occur over a highway's useable life. FHWA encourages states to complete life-cycle costing when selecting pavement type--asphalt or concrete--and for assessing alternative strategies for rehabilitating existing pavements approaching the end of their useful life. However, life-cycle costing is an elusive term subject to varying interpretations of what such analysis should entail. In addition, FHWA provides limited criteria as to what constitutes an acceptable life-cycle cost analysis. As a result, state practices vary considerably and many states do not routinely perform the analysis or they omit critical factors.

A sizable number of states make highway investments without using life-cycle cost analysis. According to data from a 1993 American Association of State Highway and Transportation Officials

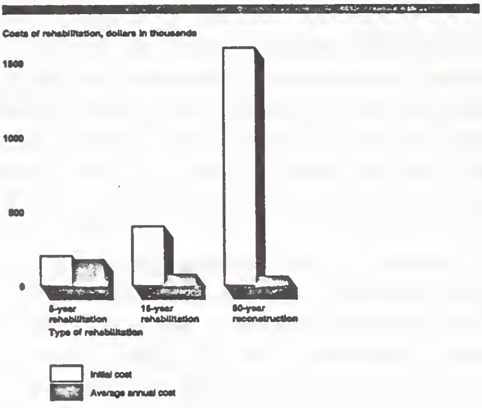
(AASHTO) survey, nearly 30 percent of the responding states (11 of 38 states) reported that they did not use life-cycle cost analysis in making highway investment decisions. This percentage of nonusers may be conservative since 12 states did not respond to the survey.

The AASHTO survey results bolster concerns raised by the Department of Transportation's Office of the Inspector General (OIG) in a series of audits on state procedures to select pavement type. For example, in September 1992, the OIG reported that the Florida Department of Transportation had not prepared life-cycle cost analysis on 12 of 13 federally assisted projects reviewed. Similarly, in April 1992, the OIG found that of seven pavements reviewed in South Carolina, none included life-cycle cost analysis to determine the most cost-effective design. For one of these projects, the OIG estimated that the project's $5.8 million construction cost could have been reduced to about $3.5 million--approximately $2.2 million in savings--on the basis of life-cycle cost analysis that supported an asphalt rather than a concrete pavement alternative. For the other six projects, the OIG study found that the pavements were being underdesigned to last approximately 10 years at forecasted traffic, rather than the more common 20-year design life. The OIG estimated that the longer 20-year design life would yield savings of $2.2 million.

AASHTO guidance suggests that states include both costs to the highway agency (e.g., initial construction and maintenance costs) and to the highway users (e.g., traffic delay costs associated with traffic congestion during rehabilitation) in their life-cycle cost analyses of pavement design alternatives. However, among states performing life-cycle cost analysis, many did not consider maintenance and user costs in their analyses. For example, the 1993 AASHTO survey found that only 16 of the 27 states that performed life-cycle cost analysis included any type of user costs. Furthermore, our analysis of 1984 Transportation Research Board survey data found that 22 of 45 states responding did not report including maintenance costs in their economic analysis.[9]

Difficulties in estimating user costs relevant to a project is a primary reason this factor is often left out of life-cycle costing. Nevertheless, factoring in user costs associated with delays arising through construction zones or detours is an important determinant of the least expensive project, especially in an urban area, according to a senior FHWA policy official. This official illustrated the influence of user cost by comparing three pavement rehabilitation strategies. The results, as illustrated in the following figure, show that on the sole basis of initial cost, a 50-year reconstruction strategy looks seven times more expensive than the shorter 5-year rehabilitation strategy. But, when the analysis is viewed on a least annual cost basis, the 50-year pavement design becomes the optimal, cost-effective strategy, primarily because of user delay costs.

Figure 1: Initial and Average Annual Costs for Alternate Approaches to Highway Repair



Source: FHWA data.

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[9] Dale E. Peterson, Life-cycle Cost Analysis of Pavements, NCHRP, Synthesis of Highway Practice 122, Transportation Research Board (December 1985). Note: Some of the states responding to this question performed types of economic analysis other than life-cycle cost analysis.

In addition, looking at just the two rehabilitation strategies, the above figure shows that the 5-year strategy looks cheaper than the 15-year strategy when just initial costs are considered. Just the reverse is true, however, when average annual costs are evaluated. Thus, a state that selects a project based on the lowest initial cost may save money in the short term, but this decision could end up costing more over the life of the project.

When states use life-cycle costing, its use is frequently limited to new construction and reconstruction rather than also encompassing rehabilitation strategies. As previously mentioned, AASHTO's 1993 survey showed that 27 of 38 state respondents used life-cycle cost analysis for highway investment decisions. Most of these states--25 of 27 states--used the technique in analyzing new and reconstructed pavement types.[10] However, the technique was used less frequently when examining rehabilitation strategies, as only 16 states used life-cycle costing to evaluate rehabilitation designs.

NATIONAL HIGHWAY SYSTEM EXPECTATIONS AND LINKAGES CAN BE CLARIFIED

In December 1993 the Department of Transportation transmitted to the Congress a proposed NHS composed of 159,000 miles. The proposed NHS is expected to handle 40 percent of all vehicle miles traveled, accommodate 70 percent of the nation's commercial truck traffic, and comprise the nation's most important roads. The NHS is also to establish linkages to all modes of transportation, including ports, airports, rail terminals, and public transportation facilities, and important travel destinations.

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[10] Reconstruction involves removing and replacing the road, rather than extending the life of an existing road through rehabilitation techniques, such as resurfacing.

The Department, working cooperatively with state and local officials as well as the private sector, has identified the most important roads in the nation that should form the basis of the NHS. Nevertheless, outstanding NHS issues remain to be addressed, including: (1) the expectations for the NHS and (2) NHS linkages to other modes of transportation.

NHS Expectations and Methods of Assessment Need to Be Established

A host of goals are associated with the NHS, but the goals may not be achieved unless system performance expectations related to the goals are established. FHWA has articulated many goals for the NHS, including economic development, enhanced mobility, reduced congestion, improved air quality, and the promotion of travel and tourism. However, these goals may not be attained unless preserving and maintaining the system is recognized as the foundation for the NHS. Furthermore, FHWA has not coupled the diverse goals for the system with system performance expectations and ways to measure how the system is performing to meet those expectations.

As part of the Highway Performance Monitoring System, FHWA uses data from the states that classify pavement into broad categories--poor, mediocre, fair, and good--on the basis of the roughness of the ride and surface defects. While the data have limitations on an individual state basis, FHWA uses them as an indicator of overall system performance, and the agency is in the process of making system improvements. The data show pavement condition improved throughout the 1980s and continues to do so into the 1990s. More specifically, in 1991 (the most recent year for which data are available) the indicator shows that the percentage of principal highways classified in good condition ranges from a high of 61 percent for rural Interstate highways to 46 percent for principal nonInterstate highways in urban areas. Consequently, the balance of the nation's major highways are at most in fair condition, which according to FHWA represents noticeably inferior pavements compared with new ones, and pavements that may be barely tolerable for high-speed traffic.

FHWA has not identified NHS performance measures; rather its efforts have essentially been focused on considering the use of existing data collection tools that could provide some indicators of the system's performance. In fact, FHWA is proposing that upon designation of the NHS, consultation would continue with interested groups to develop or refine existing policies and goals related to the performance, operation, and maintenance of the NHS routes. We agree that such refinements can and should continue after NHS designation. However, without basic expectations being set, such as those related to pavement condition and bridge deficiencies, no basis for assessing system accomplishments will exist.

Potential performance measures that could be used to track the performance of the system include ratings of the pavement condition, the number of bridge deficiencies, the number of fatalities, the extent of congestion, and the percentage of lane miles devoted to high-occupancy vehicles. For example, a performance expectation could be established that at least 75 percent of the Interstate highways be considered in good condition and at least 65 percent of other NHS highways be rated in good condition. Such expectations could be refined to reflect differences between states and/or urban and rural distinctions.

In some cases, the use of existing data sources to support NHS performance measures would need to be modified to more precisely capture NHS data. For instance, tools like the Highway Performance Monitoring System, used to assess pavement condition, are not now aligned with the proposed 159,000-mile NHS network; data are now collected on a larger network of 207,000 miles. To collect data for the NHS, tools would have to be modified to capture pavement condition and form a benchmark for evaluating subsequent performance. In a March 1994 testimony, we recommended that FHWA establish performance expectations and measures in conjunction with the major goals of the NHS to guide progress assessments and subsequent investment decisions.

NHS Linkages to Other Modes Need to Be Finalized

One of the major purposes of the NHS--establishing connections with other transportation modes, such as major ports, airports, and public transit--may not be completed until 1997. The Department is proposing that the Congress approve the NHS with the understanding that the connections would be made after such approval. In the interim, the NHS map indicates, for illustrative purposes, possible connections that may be made.

The Department has stated that the illustrative connections on the map are not intended to imply that the NHS connects with every facility identified, or that such connections will necessarily be made in the future. Instead, the Department is proposing that within 2 years of NHS approval, the states, in cooperation with the metropolitan planning organizations and other officials, identify major intermodal facilities and appropriate access on the basis of criteria to be established by the Department within the next several months.

FHWA's initial intention to work with the states to establish the NHS' connection with other transportation modes as part of the NHS designation process proved unsuccessful. One of the reasons was that FHWA's NHS instructions to the states on the NHS designation process in June 1992 did not define what a major intermodal facility was. As a result, FHWA believed it needed to rethink the state effort. FHWA subsequently worked with the Department modal administrators and the private sector to identify the connections with other modes illustrated on the map. The list of connections include 104 ports, 143 airports, 321 Amtrak stations, 191 rail/truck facilities, and 319 public transit systems.

It is clear that facilities such as major airports generally have access provided by an Interstate highway, thus such facilities would be connected to the proposed NHS. Nevertheless, the Department acknowledges that several mistakes were made in developing the illustrative list of connections to the NHS. For instance, neither FHWA nor the Federal Railroad Administration could identify the NHS road access provided to the 321 Amtrak stations on the map. In addition, the Department has not defined what it means by appropriate NHS access to a modal facility, such as a facility that is within one mile of an NHS route. Similarly, neither FHWA nor the Federal Transit Administration could provide us with any details on what type of NHS connections had been established with the 319 public transit systems. Also, intercity bus terminals were inadvertently omitted from the illustrative listing of NHS connections. Last, FHWA did base selection of the illustrative facilities on criteria. However, the agency is reassessing it as part of their ongoing efforts to develop criteria over the next few months to guide selection of intermodal facilities. This reassessment may result in additions or deletions of illustrative facilities in various categories.

In the near term, the proposed NHS represents a highway system of important roads, but the connections shown on the map remain illustrative ones. Since the establishment of consistent, broader NHS linkages to other transportation modes may be postponed possibly until 2 years after NHS enactment, we suggested in March 1, 1994, testimony before the Subcommittee on Surface Transportation, House Committee on Public Works and Transportation, that the NHS could be approved conditionally based on subsequent congressional approval of the connections established to other modes of transportation and major travel destinations.

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In summary, Mr. Chairman, it appears that full funding of the core highway programs will not be possible in the fiscal year 1995 budget without rescinding demonstration projects or reducing the funds available to highway programs, other transportation programs, other federal programs, or a combination thereof. The fiscal year 1995 predicament presents this Subcommittee with a series of difficult choices, and it appears that there are no win/win options; some program or programs will be reduced.

Part of the information base on which to make such difficult and important decisions--the status of highway demonstration projects--does not currently exist. However, FHWA is developing a system to track the status of individual highway demonstration projects. We have been working with FHWA as it develops this system and FHWA has agreed to incorporate several enhancements we suggested. These enhancements include requiring status information on projects and ensuring that project status is updated at least once each year.

Tough budgetary choices at the state level on individual highway projects affect greatly how we are investing our federal highway dollars. Many states are not using life-cycle cost analysis as the basis for decisions concerning highway projects. Rather, they are at times choosing projects with the lowest initial cost. While this saves money now, it may be short sighted. If one analyzed project costs and benefits over the life of the project, substantial savings could be realized.

Establishing performance expectations for the various goals of the NHS will help to set priorities for the system and guide investment choices when it comes to deciding between maintenance and preservation on the one hand and expanding capacity on the other. Expectations will provide some meaning to pavement condition data--are the roads in satisfactory condition or not? Furthermore, the connections with other modes and the mileage associated with them is not now known. Therefore, we have suggested in earlier testimony that the Congress consider approving the NHS conditionally with final approval subject to later review of the connections established to other modes and travel destinations.

Mr. Chairman, this concludes my testimony. We would be pleased to respond to any questions that you or any other member of the Subcommittee may have.

MAJOR FACILITIES ON THE NATIONAL HIGHWAY SYSTEM

Mr. CARR. Thank you, Mr. Mead. On that last point, are you referring to the fact that apparently there are several hundred transit and Amtrak, maybe even some airport facilities that do not interconnect with the NHS?

Mr. MEAD. Yes. In fact, there are 321 Amtrak stations that are shown on the map as a railroad symbol, but the connection to the National Highway System has not yet been established. That is one example.

Another example is bus terminals. The intercity bus terminals were inadvertently left off the map. So when they put them back on, they are going to have to decide, well, should that bus terminal link to the National Highway System? And it is not an inconsequential question. Does linkage mean that the NHS road goes right to that transportation facility, or is 20 miles distance from that transportation facility acceptable?

Mr. CARR. How do you deal with the situation that those kinds of transportation facilities will open and close depending on the economy, depending on the demographics? Is it realistic to link them all? We get complaints from our colleagues all the time that Amtrak is closing a station here, there and everywhere. And maybe they do and they have closed a number of them. Would we be burdening the NHS to designate connections to these facilities only to see them in future years go out of existence and then you have a connection without a purpose?

Mr. MEAD. Yes, you would. And that is why the Department needs to develop criteria and share it with the States, or develop it with the States, outlining what would qualify as a major transportation facility appropriate for linkage to the National Highway System.

Mr. CARR. You would assume that most major airports are not going to be moved.

Mr. MEAD. That is correct.

Mr. CARR. They might do that in Colorado, but most places we do not move airports. But train stations do open and close and change their locations. Bus terminals frequently do.

Mr. MEAD. That is correct.

Mr. CARR. Do you think that just by criteria you could try to weed that out; is that what you are proposing?

Mr. MEAD. I think through criteria they could come up with a fairly solid basis for what a major transportation facility is while maintaining some flexibility. As you point out, there are some places like airports that will almost certainly continue to warrant an NHS connection, although there are one or two notable exceptions.

Ms. JONES. Just to add to what Mr. Mead just said, Mr. Carr, the other thing we would be recommending is a framework to guide future changes. This way, the States would understand that if there were changes, for example like at Amtrak stations, maybe within a three-year period they would come back to FHWA and say, we have closed this one and opened this one, so we would like to readjust our NHS mileage within our State.

Now there is no framework to guide future changes. Do they come in every time a change is sought? Do they come in once every three years? How is it tied to state planning processes? There is not really a framework for change.

Mr. CARR. Framework would also have to include, I would think, some fairly rigid requirements to eliminate designations. In the case of Amtrak, for example, they are not moving it, they are closing them outright. And it puts—if you make too much of a hardwire link between money and that station being there, what you do is you prevent Amtrak from closing stations which are not economically productive because you build an incentive on the part of the State who is getting money under a formula for the NHS to preserve that link, even though the station has no economic vitality anymore.

They could exert an enormous amount of political pressure to keep unproductive Amtrak stations open just to preserve the dollars for the link. Things like that could enter the picture. So I am not real sure that—well, let's put it this way, we should probably look at all the incentives there because some people would love to have a link running to nowhere just to get the dollars.

Mr. MEAD. Yes, I think that DOT will face some pressure in the next two years, because the amount of mileage on the NHS is subject to a cap, and DOT has suggested that they be allowed to go from 159,000 to 165,000. And as you get to the end, a number of jurisdictions I suspect will be disappointed because linkages they would like to see may not be approved. But I believe you will need some basic criteria so everybody's operating off the same wavelength.

LIFE-CYCLE COST ANALYSIS

Mr. CARR. Going to life-cycle costing, what do you think are the major obstacles to the greater use of life-cycle costing techniques for highways?

Mr. MEAD. There are some methodological obstacles and there are some budgetary ones. Life-cycle costing has, as a distinct advantage, that it looks over the life of a project and says, well, if we do a quality job up front, how much would we spend over a period such as 20 years? Well, not every jurisdiction budgets on the basis of 20 years. Some highway departments do not know exactly what they are getting from one year to the next. This is a practical constraint to life-cycle costing.

A second obstacle is methodological. And in the methodological area, I think guidance would help. For example, as I pointed out in my statement, some jurisdictions include maintenance costs in their analyses, and others do not. The elements that you would consider in an analysis are not well defined. Different people do it differently.

There is a major issue on whether user costs should be included in life-cycle analysis. As a consumer and as a user of the highways, I would argue that, yes, user costs should be included. From a highway department's point of view, though, the gas that I consume while I am waiting in congested traffic is an expense I must bear, not the highway department. They have a constrained amount of dollars that they can apply to a project and some highway departments feel that how much money the highway department will have to put out should be the frame of reference for life-cycle cost analysis.

Care to amplify?

Ms. JONES. Certain factors need to be identified for the States to use. FHWA has already started that process. They conducted, I think, a two- or three-day seminar with the transportation community earlier this year to talk about the difficulties in terms of the methodological tools they needed. They also discussed the need for guidance about which factors, such as user costs and maintenance, should be included in the analysis.

Mr. CARR. Well, you know, one of the things that occurs to me, and I tend to like life-cycle costing, but my guess is that a highway department sees the problem a little differently. If you are talking about the life-cycle cost of a ribbon of pavement from point A to point B, you can probably get some pretty good statistics and some pretty good decision-making criteria. But highway departments do not do roads from point A to point B. They maintain a system of roads.

So if you are really going to life-cycle cost, you have to figure out a way not only to life-cycle cost a particular ribbon of pavement but you have to figure out the life-cycle cost for opportunity costs on the entire system because there is just a sum total of maintenance and there is a sum total of opportunity for new construction. And the life-cycle cost benefit for a particular ribbon of pavement might be advantageous, but in the process, you might bring the whole system down.

Do you see what I mean?

Mr. MEAD. Yes.

Mr. CARR. So my affection for life-cycle costing is somewhat tempered by the techniques and the methodologies that you can employ to do a system analysis. I would think that would be a good bit harder, much more complex.

Ms. JONES. Much more complex, and my understanding is that the HERS (Highway Economic Requirement System) model that FHWA is developing at least provides a starting point for that kind of macroanalysis. We have not looked at that model as part of our work before. Instead we have focused on the more project-specific part of life-cycle costing at the State level.

Mr. CARR. Well, I think that is an important thing to look at, and I think that right now, we have no chance that good decisions are being made because no information is being developed. But I also think you can take it too far. I guess that is all I am saying.

What you have to do is the sum total of all the life-cycle analysis, of all of the system, to figure out where you can optimize your advantage, and it would seem to me that that kind of analysis is maybe a little further down the road.

Ms. JONES. And maybe one component to help that further down the road is the pavement management systems. Life-cycle costing is a required component under that management system, and may provide a system-wide look at that issue.

Mr. MEAD. Yes, the ISTEA legislation related to planning requires that life-cycle costing be considered. Now, it is open to interpretation exactly what that means, but our point is it is time to advance the state-of-the-art. We believe FHWA recognizes that it has a clear role in advancing that state-of-the-art and you are also right, you can take these things too far.

Mr. CARR. Mr. Regula.

Mr. REGULA. No questions.

Mr. CARR. Mr. DeLay.

Mr. DELAY. No questions, Mr. Chairman.

Mr. CARR. We have a few other questions we will ask for the record and that is it for now.

MAJOR OBSTACLES TO LIFE-CYCLE COSTING TECHNIQUES

Mr. Mead, you mention the role that life-cycle costing could play in making our limited transportation dollars go farther. The argument has been that the desire to build the interstate highway system as quickly as possible may have been a contributing factor to this Nation's general approach of highway construction. Of course, it does cost more initially to build a road to last for 40 or 50 years instead of 20.

What do you think the major obstacles are to a greater application of life-cycle costing techniques?

[The information follows:]

A key obstacle to greater use of life-cycle cost analysis is the need for comprehensive information to provide four types of cost data: initial costs, rehabilitation costs, maintenance costs, and user costs. States traditionally have had data on the initial costs of the highway project and could reasonably estimate the costs to rehabilitate the highway, such as 10 or 15 years in the future. However, a 1993 AASHTO survey found that while 27 of 38 responding states performed life-cycle cost analysis, only 16 states included any type of suer costs in their analyses. Further, an earlier Transportation Research Board survey found that 22 of 45 states responding did not include maintenance costs in their analysis.

As noted previously, another key obstacle to greater use of life-cycle costing is institutional: state budget processes usually enforce a decision-making horizon of one or two years. Thus, typical budgeting practices can give short shrift to planning tools that offer the opportunity to save money over a 20-year span. Long-range planning requirements established under Section 1025 of ISTEA may, however, temper the effect of an annual budgeting process on long-term investment decisions.

Mr. CARR. In your opinion, is any additional research on the applicability of life-cycle costing necessary?

[The information follows:]

Absolutely, particularly given the obstacles to using life-cycle cost analysis I previously mentioned. States certainly want to use life-cycle cost analysis to make better highway investment decisions. But they need more information on how to do it—for example, how to determine and include user and environmental costs. Without the data and the how to's, life-cycle cost analysis will remain a well-intentioned but underutilized investment tool.

Mr. CARR. What specific actions do you think it would be beneficial for the Federal Highway Administration to take to encourage greater use of life-cycle costing measures?

[The information follows:]

The FHWA needs to provide states with more guidance and technical assistance/training on how to do life-cycle cost analysis techniques. For example, FHWA could take a leadership role in building consensus in the highway community over what factors need to be included in life-cycle cost analysis, such as maintenance and user costs and when life-cycle cost analysis would be beneficial. Further, FHWA could determine what analytical tools—such as models or data collection methods—are available and have been successfully used by states and disseminate that information to all states.

Mr. CARR. Do you have an estimate of the amount of monetary savings that might accrue to the highway program if life-cycle costing techniques were used as a matter of course?

[The information follows:]

No. To our knowledge, no overall estimates of potential cost savings associated with life-cycle cost analysis exist.

Mr. CARR. Do you think it would be beneficial for the FHWA to have a requirement that a life-cycle costing analysis be performed before funds could be obligated for the construction of a highway project?

[The information follows:]

Yes, but with flexibility. At a minimum, life-cycle cost analysis should be required on National Highway System projects over a certain threshold, such as $1 million. Such a requirement could be included in the design and construction standards for new construction, reconstruction, resurfacing, restoration, and rehabilitation of NHS highways. On Surface Transportation Program projects, in keeping with the ISTEA's emphasis on flexibility, states should be encouraged to use life-cycle cost analysis.

Mr. CARR. How difficult is it to perform a life-cycle cost analysis for a highway project? Can you tell us how much more time and money it would take to perform such an analysis for the average highway construction project?

[The information follows:]

Undoubtedly performing life-cycle cost analysis entails some additional costs. These costs bear out the need to apply life-cycle costing to those projects most likely to benefit from this type so analysis, perhaps in accordance with a project cost threshold. It should be noted that the majority of costs connected to life-cycle cost analysis are associated with data collection. For example, of the 27 states that reported using life-cycle cost analysis in the 1993 AASHTO survey, 22 of those states reported using automated computer programs to perform the analysis. Because the time to run the programs is minimal, the cost and time comes in gathering the data needed to do the analysis. And, as I've previously noted, a number of states have life-cycle costing data limitations, because they do not routinely incorporate maintenance and user costs in their analyses.

INTERMODAL CONNECTIONS TO THE NATIONAL HIGHWAY SYSTEM

Mr. CARR. Mr. Mead, your statement indicates that the National Highway System proposed by the Department of Transportation last December, while including hundreds of transit and Amtrak facilities, often did not include the routes that connect those facilities to the highway system.

How serious an issue is this? Do you think it can be readily remedied, or does it represent the factional nature of the various modes within the Department and the difficulty in attaining a truly intermodal National Transportation System?

[The information follows:]

The issue goes to the fundamental purpose of the NHS, which according to ISTEA is to provide an interconnected system of principal highways that will serve major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and major travel destinations. Forging these NHS links will by no means be an easy task, but it is a doable one. Furthermore, DOT has already begun the process of establishing the criteria that will be used to form intermodal connections to the NHS.

Mr. CARR. Thank you. Your analysis is always helpful.

Mr. MEAD. Thank you, Mr. Carr.

FHWA OPENING REMARKS

Mr. CARR. Our next witness is Rodney Slater, the Administrator of the Federal Highway Administration. Mr. Slater, I will ask you to summarize your prepared statement and introduce your colleagues.

Mr. SLATER. Good morning, Mr. Chairman, Members of the Committee. We are very pleased to have this opportunity to be with you and I do consider it a special pleasure on my part because this is my first hearing of this sort to deal with the budget of the Federal Highway Administration.

We took special note of your comments earlier that it represents half of the budget of the Department of Transportation. Hopefully before the conclusion of today's hearing, everyone will understand that we appreciate that fact and we wish to be very sensitive and frugal when it comes to spending the public's money.

Also, I would like to introduce the other individuals who join me at the table this morning. First, to my right, we have our Deputy Administrator, Jane Garvey. Many of you have had the opportunity to visit with her over the last year, and I hope that you, as I, have found her to be most capable in making the case for the need to invest more in our infrastructure.

Also, to my far left, I would like to introduce Louise Stoll. Louise is the Assistant Secretary of Budget and Programs with the Department of Transportation, and Louise has been a part of these and similar hearings with the Secretary and with the other modal administrators.

And then I would like to introduce Dean Carlson. Dean is the Executive Director of the Federal Highway Administration. He brings a career of experience and devotion to the task of improving our Nation's highways, and it is a pleasure to have the opportunity to work with him and all the other members of the career staff.

If I may, Mr. Chairman, I would like to also introduce other members here of our senior staff because I am sure, as we get into some of the details today, we will have occasion to call on them to be more responsive in dealing with some of the questions of the chairman and Members of the Committee.

I would like to introduce our Associate Administrator for Policy, Ms. Gloria Jeff. Gloria is right here. Gloria hails from Michigan and has just joined our staff.

Mr. CARR. Great asset to the Department.

Mr. SLATER. Mr. Chairman, she brings a wealth of experience to our staff.

Also, I would like to introduce our Associate Administrator for Program Development, Tony Kane. Tony is right here, and so is Jack Basso, our budget officer. Many of you have had the pleasure of working with Jack over the years. We feel very fortunate to have him on our staff.

Also, to my left, I want to introduce John Clements. John is the Associate Administrator for Research and Development. Also, I would like to introduce our Associate Administrator for Safety and System Applications, Denny Judycki; and our Associate Administrator for Motor Carriers, George Reagle. George is new to our staff. He worked for some years with the National Transportation Safety Board and brings a wealth of experience to his task. The Associate Administrator for Administration, George Moore, is here as well.

RECENT DISASTERS

Mr. Chairman, if I may, let me just say that the last year has been quite an experience for me. I have had occasion to travel through most of the country. I have visited more than 30 States thus far. The objective has been to look, to listen and to learn, and I have learned a lot. I think two events really underscore the significance of the importance of transportation to our country.

One thing I have discovered is what we take for granted. The American people take transportation for granted, but the floods of the Midwest and also the earthquake in Los Angeles forced us as a Nation to stop and reflect on the importance of transportation to our country. Not only is it important to our economy, but it is important to Americans in their pursuit of happiness, and I think both of these natural disasters underscored that point very vividly.

With that, let me say that it is appropriate that we say to you, Mr. Chairman, and to the Members of this Committee, how important it was for you to respond in an expeditious fashion to provide emergency relief funds for those who were victimized by the Midwest floods, as well as those who were hurt and harmed by the earthquake in California. Those individuals now have an opportunity to get back on track because this Committee and you acted, and we were there in partnership with them from the very beginning. We have made a commitment to be with them to the end.

I was just in St. Louis to visit with highway officials to make additional Federal resources available for the Midwest floods. I have joined the Secretary on a number of occasions traveling to California. Again, we were there in the beginning, and we hope to be there throughout this process. We must underscore the fact that without the resources you have made available, our being there would be of little comfort other than to underscore the partnership. With the dollars you have given us, we are able to be there in a substantive way and we very much appreciate that, and we know they appreciate it as well.

What it reflects, in a nutshell, is what the President noted in his State of the Union address when he said these disasters have forced us to be guided by the better angels of our nature. Because of your response in dealing with the need for additional resources, we were able to respond in a substantive way and we appreciate that.

INFRASTRUCTURE INVESTMENT PROPOSAL

When you look at the FHWA budget, it is about one thing—investment; investment in such a way as to create jobs, investment in such a way as to enhance our economic capacity to compete in a global economy. We are talking about an investment of over $20 billion, a significant amount. But as stated earlier, the question is, “Will that be enough?”

We can debate that, and all of us would probably conclude that it is not enough. But we have to also appreciate the fact that this represents a significant investment. It represents a commitment to full funding of the core Federal-aid programs as outlined in ISTEA in 1991. This is the first time that has been done, and I believe that the President should be commended, along with the Secretary, in making the case that an investment in transportation is an investment in the overall health of the American economy, and that it enhances our ability to compete in a global marketplace.

The infrastructure investment component of the DOT budget represents 71 percent of our total budget as proposed for fiscal year 1995. Also, this amount that represents the infrastructure investment in our budget represents 83 percent of the total Federal budget for infrastructure. So an investment in DOT and its activities represents a commitment to rebuild America, and we are pleased with where we stand now, but we clearly will need additional assistance from this committee if we are to make real the proposed DOT commitment as voiced in the President's proposed budget and with respect to FHWA.

NATIONAL HIGHWAY SYSTEM

Let me mention a couple of things about the budget that has been presented. Mr. Mead indicated the importance of the National Highway System. We have worked hard over the years to make that a reality, not just a concept, and we did submit to the Congress on December 9th our proposed National Highway System. We presented it ahead of schedule because of our understanding of the need to move expeditiously to get this highway system approved by Congress so that it can serve as a focal point for us in making strategic investments.

This system represents only 4 percent of the 4 million miles of public roads in this country. This system of approximately 159,000 miles carries, although its represents just 4 percent of the Nation's roadways, 40 percent of the highway traffic and approximately 70 to 75 percent of the Nation's commercial truck traffic and 80 percent of its tourism traffic. That is a strategic focus, and it can guide us in our effort to make strategic investments.

We need to move on it quickly, and with the assistance of this Committee and Congress, we can do that.

One other point I wish to make about the National Highway System is that I don't believe that it should be approved conditionally, nor does this agency, nor the Department. Since, in the planning process, we are going to take this flexible system and do the many things that Mr. Mead suggested would have to be done in order to make it a real system, there is no need to approve it conditionally. With the planning process that has been put in place, where we will have a dialogue with the States and with MPOs and local elected officials, we can deal with this flexible concept that the NHS represents and address those concerns that have been raised here today.

Also, it is important that we move quickly, because, as you know, Congress has until September 30th of next year to act. If Congress does not act, then we cannot spend NHS monies nor interstate funds. So we want to move on the program as quickly as we can. We believe that it will serve to better tie America together, it will help us in our efforts to make NAFTA a reality, it will spur economic development, and it will be critical to the development of some of the north-south routes that are so important when it comes to making NAFTA a reality.

Let me move quickly to three other items and then we will be pleased to entertain any questions you may have.

MOTOR CARRIER SAFETY

As is relates to the Motor Carrier Safety Assistance program, we are pleased that we are able, with this budget proposal, to fully fund that program as called for in ISTEA. This represents an $18 million increase, but those resources are needed if we are to continue to make our highways even safer. So we would very much appreciate strong support for that program.

Last year alone, we were able to make some 1.9 million roadside inspections, which we believe were very helpful when it comes to improving the safety of the roadways of the country.

Some 450,000 vehicles were put out of service as a result of those roadside inspections, as well as, I believe, about 100,000 drivers. So we believe it is a program that is deserving of the additional resources.

IVHS RESEARCH AND DEVELOPMENT

As far as research and development in IVHS, I know, Mr. Chairman, this has been a matter of importance to you, and also to the Members of the Committee. Let me say that without this program, and without the increased investment here, there is no way we can have a system that will sustain us in this century, nor a system that will be worthy of being called a system of the 21st Century.

Our competitors are investing significant amounts in research and development. What we have proposed here will allow us as a country to remain at the cutting edge in this particular area of transportation development, so we encourage you to be supportive of that as well.

DEMONSTRATION PROJECTS

When it comes to the touchy issue of demonstration projects, which has been addressed earlier today, we just want to let you know that we wish to work with the Congress to deal with this. The problem presents itself simply because we do not have enough money to do all that we wish to do, but I believe that the recommendations offered by Mr. Mead represent the kinds of considerations that we have been taking into account. If we can work with the Members of this Committee and with Members of Congress to resolve this issue, then I think the country will be well served.

So with that, Mr. Chairman, we thank you again for the opportunity to be with you today.

[The prepared statement and biography of Rodney Slater follows:]

STATEMENT OF
RODNEY SLATER

ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION
DEPARTMENT OF TRANSPORTATION

BEFORE THE
HOUSE APPROPRIATIONS
SUBCOMMITTEE ON TRANSPORTATION

MARCH 8, 1994

Mr. Chairman, Members of the Subcommittee. Thank you for the opportunity to testify in support of the Federal Highway Administration's (FHWA's) FY 1995 budget.

Joining me this morning are Ms. Jane F. Garvey, the Deputy Administrator, Mr. Dean Carlson, the Executive Director, and Ms. Louise Stoll, the Assistant Secretary for Budget and Programs for the Department of Transportation. Other key members of the FHWA staff are also with us to elaborate on various aspects of our budget request, as appropriate.

FY 1994 EARTHQUAKE SUPPLEMENTAL

Before I begin the discussion on our FY 1995 budget request, I would like to thank the Congress in general and your Subcommittee in particular for the speedy enactment of the recent emergency supplemental appropriation for California earthquake relief and giving us and other agencies the authority to assist governments and needy individuals in rebuilding their lives.

This disaster vividly illustrates once again how vital our transportation system is to our Nation's productivity and quality of life.

We have also faced other disasters such as the needs generated by the midwest floods and the harsh weather conditions in the northeast section of the country.

As President Clinton said the American people rose to the occasion, "neighbor helping neighbor, strangers risking life and limb to save total strangers, showing the better angels of our nature."

OVERVIEW

The President in his budget submission to the Congress makes investing in infrastructure a national priority. Infrastructure investment represents 71% of the Department of Transporation's budget for FY 1995. It also accounts for 83% of the total Federal budget for infrastructure. Strategic investment is essential to promote the growth in productivity and employment needed to maintain and enhance the nation's competitiveness in a global economy, improve safety, and to ensure a clean environment. It is also important to note that the transportation industry represents fully 17% or about $1 trillion of our Gross Domestic Product. Thus, the Administration has proposed full funding of the core highway program at the authorized level of $18.332 billion under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). Also included is funding for Minimum Allocation and a portion of the Special Projects. Such full funding will allow completion of projects underway as well as maintenance of the current infrastructure. This brings our total obligation request for Federal–aid Highways to $20.069 billion.

The budget also assumes savings from the elimination of selected demonstration projects. This savings proposal has been controversial. The Administration has not sent specific demonstration project rescission proposals to the Congress, since we want to work closely with this Committee and the Congress to find alternatives to accommodate both the limits required by the deficit reduction targets and the need to fully fund the core program as a major investment in transportation. We have also proposed a single obligation limitation which includes not only the core program but also Minimum Allocation and Special Projects funding; this proposal is designed to ensure that States have maximum flexibility to use the total available obligation authority on priority funding categories at their discretion.

TRANSPORTATION GOALS

The Department has established a number of goals for transportation to which the budget responds. These include tying America together through an effective intermodal transportation system that includes the proposed National Highway System (NHS) and its intermodal connections, which were recently submitted to the Congress. The NHS will be discussed later in more detail.

Other goals to which this budget responds are: (1) investing strategically in transportation infrastructure to increase productivity and create jobs; (2) creating an alliance between the Nation's transportation and technology industries to make them both more efficient and internationally competitive; (3) promoting a safe and secure transportation system; and (4) actively protecting and enhancing our environment through wise transportation decisions.

IVHS

For example, one program that fits very well into this goal framework is Intelligent Vehicle Highway Systems (IVHS). The IVHS program presents an excellent opportunity to achieve public benefits in areas such as safety and mobility, while also helping to achieve national economic and defense conversion objectives. The program achieves this primarily by providing a new market (and one that is international in scope) for advanced technology products and services that entities can develop, license, and sell. This means jobs, and jobs that are high–paying so that additional economic activity can be generated. IVHS supports (often in partnership arrangements) the research, development and testing of new technological applications. It also demonstrates the benefits of R&D by supporting the deployment of cutting–edge technology. We are proposing to increase the GOE funding for FHWA's IVHS program to $165.81 million, an 83 percent increase over the FY 1994 level of $90.3 million.

INTERNATIONAL TRADE

The recent GATT and NAFTA trade agreements emphasize the increasing importance of international trade to our Nation's economic well–being. The transportation infrastructure that we put in place, including the NHS and all its vital intermodal links, will significantly affect the extent to which we take advantage of international commerce –– particularly with our neighbors in Latin America and the Pacific Rim nations –– and how successfully we respond to global competition. We must recognize the strategic role transportation will play in tomorrow's global economy, and begin investing more wisely today in the structures and technologies that will enable us to gain a competitive edge. As we look around the world, we see many examples of the relationship between a sound transportation infrastructure and economic expansion.

MOTOR CARRIER SAFETY

The Motor Carrier Safety Assistance Program (MCSAP) is a critical part of our partnership with the States to enhance truck and bus safety on our highways. To continue to build on the successes of our partnership, we propose to fund this program at the ISTEA level of $83 million. Last year 1.9 million roadside inspections and 12,000 reviews of motor carrier safety companies were performed which resulted in putting 450,000 vehicles and 100,000 drivers out of service. The increase in funds for FY 1995 will implement new enforcement efforts. This funding will also support new program initiatives such as use of advanced inspection technologies to increase the efficiency of roadside inspections and development of means to address border trucking issues that arise from the implementation of NAFTA. The new initiatives, together with support for current activities, will result in implementation by the States of comprehensive motor carrier safety programs that include traffic enforcement, research, public awareness, accident data collection, and hazardous materials enforcement.

NATIONAL HIGHWAY SYSTEM

Having discussed the general goals and features of the budget submission, I would like to turn my attention to the National Highway System. I consider the NHS to be the cornerstone of our future highway network and the backbone of a national transportation system. The 159,000 mile system the Department proposes consists of only 4 percent of the Nation's roads yet carries 40 percent of the Nation's highway travel and 70 percent of the commercial truck traffic and 80% of tourist traffic. Because these are the most productive roads, Federal funds directed toward the NHS would be strategically invested -- we will get the most out of our transportation dollar.

A National Highway System will yield many economic benefits. It will support sustained economic strength, productivity, growth and competitiveness in the global marketplace. Designation of the system in 1995 will facilitate using Federal-aid program funding in the most efficient way possible.

To summarize, these proposals embody several key principles which include providing funding to the States that accords them maximum flexibility to make choices on transportation priorities, make the most flexible use of funds and encourage opportunities to promote intermodal projects. Fully funding the ISTEA-authorized amounts for the core highway program will enable us to get back on track in terms of accomplishing the critical investments envisioned in that legislation. To complement this investment we have also proposed both increased funding to invest in technology through research and development and substantially increased funding for the IVHS program. In addition, while a small part of the total program funding, we have also requested funding for the Supportive Services program to help facilitate diversity employment in the highway construction industry.

BUDGET HIGHLIGHTS

Financial Resources

In total, our FY 1995 budget proposes an overall program level (obligations) of $20.309 billion compared to obligation levels of $20.357 billion and $18.015 billion for fiscal years 1994 and 1993 respectively.

The budget authority included in our FY 1995 request totals $20.866 billion, compared to the FY 1994 and FY 1993 budget authority levels of $21.305 billion and $21.223 billion respectively.

Outlays for FY 1995 are estimated at $18.989 billion. Estimated outlays for FY 1994 and actual outlays for FY 1993 are $18.232 billion and $16.656 billion respectively.

Personnel Resources

Our FY 1995 budget request reflects FHWA's share of staffing reductions consistent with the President's Executive Orders to reduce Federal civilian employment.

We are requesting a total of 3,849 full–time equivalent workyears (FTE's) in FY 1995, a reduction of 60 below the 3,909 approved for FY 1994.

Federal–aid Highways

We propose an FY 1995 obligation limitation of $19.969 billion (based on the ISTEA authorized level for FY 1995 of $18.332 billion plus estimated obligations of $1.637 billion for programs previously exempt from the limitation.) In addition, $100 million is exempt for Emergency Relief, yielding total obligations of $20.069 billion. The proposed FY 1995 obligations are $414 million (2 percent) higher than the FY 1994 level, excluding emergency supplemental funding enacted in FY 1994.

Motor Carrier Safety Grants

We propose an obligation limitation of $83 million, equal to the FY 1995 ISTEA authorized amount. The FY 1995 proposed level is $18 million above the $65 million FY 1994 level.

Highway Related Safety Grants

We propose an obligation limitation of $10 million, equal to the enacted FY 1994 limitation.

General Operating Expenses

A limitation of $598.5 million is proposed for FY 1995, an increase of $129.7 million (28 percent) above the FY 1994 level of $468.8 million. The increase reflects growth in IVHS ($75.5 million), mandatory cost increases, other Research and Development activities, on–the–job training services, continuing renovations of research laboratories and international activities.

Annual operating costs, ie., excluding no–year contracts, are being increased by $8 million (2.7 percent) of which $3.8 million (1.3 percent) is mandatory costs and only $4.2 million (1.4 percent) is for program expansion which includes increases in office space rental rates, working capital fund charges, and additional contractual services.

Assumed Savings

The budget assumes FY 1995 outlay savings of $406 million ($314 million in Federal–aid Highways and $92 million in miscellaneous accounts) associated with rescissions based on recommendations of the National Performance Review. However, at the same time, the Administration recognizes that other options are available to achieve these savings. One option, transmitted as an FY 1994 supplemental, would require the Secretary to reduce or delay obligations of highway construction projects in FY 1994 sufficient to reduce FY 1995 outlays by $406 million. It is the Administration's intent to work with the Congress to accomplish the means to achieve the necessary savings.

We also propose to rescind in FY 1995 $20 million in unobligated balances of contract authority for Highway Related Safety Grants that is unavailable for obligation because of obligation limitations.

CONCLUSION

In conclusion, we have proposed a budget which continues to follow the course established by the ISTEA for the Nation's transportation systems. It also responds to the Administration's guidance on budget constraints, priorities, and policy issues such as advancing intermodalism and optimizing transportation resources. Our requested increases, are essential for effectively implementing the ISTEA.

Once again, thank you for this opportunity to testify today on our FY 1995 budget request. I would be pleased to address any questions you may have.

US Department
of Transportation
**Federal Highway
Administration**

400 Seventh St . S W
Washington. D C 20590

BIOGRAPHICAL SKETCH
RODNEY E. SLATER
FEDERAL HIGHWAY ADMINISTRATOR

Rodney E. Slater was formally sworn in as the Administrator of the Federal Highway Administration (FHWA) on June 16, 1993, after being nominated by President Clinton in March and confirmed by the U.S. Senate on May 28, 1993.

Slater, the first African-American to hold this position, is the FHWA's 13th Administrator and the 19th overall chief highway executive since the agency's inception in 1893 as the Office of Road Inquiry. In his role as Administrator, he is responsible for ensuring the safety of the nation's system of highways and bridges, as well as the enforcement of Federal truck and bus safety standards.

Until he accepted the position as Deputy Campaign Manager and Senior Traveling Advisor for the 1992 Clinton Presidential Campaign, Slater was Director of Governmental Relations at Arkansas State University.

Rodney Slater served on the Arkansas State Highway Commission from 1987 to 1993. In 1992, Slater was appointed Chairman of the Commission which develops transportation policy and monitors the activities of the Arkansas State Highway and Transportation Department. Slater -- a native of Marianna, Arkansas -- was awarded the 1990 Arkansas Transit Association's "Arkansas Public Transportation Advocate Award" for his efforts as a staunch advocate for greater investment in transportation to stimulate the economy.

Earlier in his career, Slater served as an Assistant Attorney General for Arkansas and was a key member of the Governor's staff, serving as Executive Assistant for Economic and Community Programs.

He served on the Arkansas Sesquicentennial Commission and as Liaison with the Martin Luther King, Jr. Federal Holiday Commission. Slater, formerly secretary-treasurer of the Arkansas Bar Association, was named an "Arkansas Hero" in the December 1989 issue of the Arkansas Times magazine for his work to improve conditions in the Delta. He was also honored by the Arkansas Jaycees as one of the "Ten Outstanding Young Arkansans" in March 1990.

A scholar-athlete at Eastern Michigan University in Ypsilanti, Michigan, Rodney Slater graduated in 1977. He went on to attend the University of Arkansas School of Law in Fayetteville, Arkansas and graduated in 1980.

Slater is married to Cassandra Wilkins and they have an infant daughter named Bridgette Josette.

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Mr. CARR. Well, thank you, Mr. Slater. We are delighted to have you and all of the supporting staff and the Assistant Secretary here. Welcome.

I have a rather lengthy series of questions and I think maybe before I launch into them, I should give my colleagues an opportunity.

Mr. Regula.

CLEAN AIR ACT CONFORMITY PROBLEMS

Mr. REGULA. Thank you, Mr. Chairman, and thank you, Mr. Administrator, Mr. Slater.

I was interested in your bio, Mr. Slater, that you were awarded the 1990 Arkansas Transit Association's, quote, Arkansas Public Transportation Advocate Award for your efforts as a staunch advocate for greater investment in transportation to stimulate the economy. I agree with that totally because transportation becomes the arteries of a Nation's economy. And I am pleased to see your dedication to that and it probably goes a little bit along with the two questions I have.

The first is, in the final regulation of the transportation conformity rule of the Clean Air Act amendments, EPA added NOx which will prohibit the Federal funding for transportation projects in nonattainment areas if the project is likely to result in higher emissions of oxides of nitrogen.

This build/no build test, will not apply once EPA has approved the states' plans to obtain and maintain air standards. However, Ohio—and I think this would be true of Michigan and many industrial States—says that such a plan may not be completed and approved by EPA for 12 to 24 months.

It is my understanding that Delaware and Rhode Island have already had urban projects turned down because of this rule. Also, four urban areas in Ohio have submitted their long-range transportation plans to DOT and EPA. In February, they were informed by the Region 5 office in Chicago that they will be rejected because of the NOx rule. And I might parenthetically add that in Ohio, we have $2 billion worth of highway construction on hold.

Is the Federal Highway Administration aware of the impact this rule will have on surface transportation projects? How closely is FHWA working with EPA on this issue, and what recourse do you believe the states have who are facing a cutoff of their highway funding?

And let me add also, when we talk about welfare reform in the urban areas where the nonattainment areas are, you have to have jobs, you have to enhance the transportation program in these areas, and yet under this rule, they are at a standstill. So I would be interested in your response.

Mr. SLATER. First of all, we are very much aware of the potential impact that the provision you mentioned can have on our program. The Secretary is very interested in it. Just last week, he had a meeting with Administrator Browner on the matter.

Mr. REGULA. I know.

Mr. SLATER. Clearly, this is an administration that believes we have to rebuild America, that we have to invest in infrastructure. It is also an administration that believes in doing so, we have to be sensitive to the environment; that we have to not only restrict ourselves when it comes to doing those things that damage the environment, but we also have to look for opportunities to do those things that enhance the environment.

It is one of those very difficult balancing acts that the interests of the times require us to make. I believe that within the administration, we have the capacity for making that balancing act, and I believe that the meeting last week with the Secretary and with Administrator Browner is a step in the right direction. I also believe that the conformity regs that have been recently formulated are also a step in the right direction.

And I would like to note at this time the quality contribution made to that effort by Deputy Administrator Jane Garvey, as well as other members of our staff, but I want to underscore the quality effort she put forth in that regard.

But it is clearly an issue that is going to be with us for some time. It is a difficult issue, and we are fully aware of what the potential is when it comes to our entire program. We could actually have EPA dictating the actions of the Department of Transportation.

Mr. REGULA. Exactly right.

Mr. SLATER. And we do not want to have that happen and I don't believe the Administrator wants to have that happen. We believe that if those involved or concerned about the environment can be brought into the process early on, then we may be able to eliminate some of the problems caused later in the process when environmental interests are taken into account.

Jane may have a comment to make in that regard.

Ms. GARVEY. Thank you very much, Mr. Chairman, and Congressman. Let me add a couple of notes to what the Administrator has said.

I think Ohio put forth a very compelling case and I think you have touched on it very accurately. We have been able to solve the problem in Ohio as well as with Delaware. We have done that by working very closely with EPA. But, clearly, the NO_x issue is one we are going to have to keep hammering away at.

The meeting the Administrator referred to was chaired and hosted by Secretary Peña. He had Administrator Browner there. She was very, very forthcoming in saying that she wanted to work with each state that was having a particular problem, and the states were well represented and came forward with some very specific examples.

We have solved those three problems. I assume there will be others and we are going to keep working at it, but the NO_x issue is far and away the most complex and the most difficult part, I think, of the conformity regulations, but we are working hard on it.

USE OF CMAQ FUNDS

Mr. REGULA. Well, I appreciate your efforts. Just one other question, Mr. Chairman.

I understand from state transportation officials that there has been difficulty in determining whether specific projects can qualify for use of CMAQ funds, particularly intermodal projects which encourage truck trailers or containers to be loaded and hauled on railroad cars have had difficulty in qualification despite the fact they can reduce motor vehicle emissions of volatile organic compounds which cause ozone and nitric oxide pollutants.

Would you comment, please, on FHWA's position regarding the use of CMAQ funds regarding such intermodal projects?

Mr. SLATER. We are in the process now of reevaluating that entire program. We think that we have to be a bit more creative when it comes to using those limited dollars, and I might underscore that, to address the environmental concerns that exist. But we are clearly reevaluating the entire program and could possibly see these kinds of activities included in the future.

Mr. REGULA. So you think you will be able to clarify the uncertainty that now seems to exist in this legislative history, et cetera?

Mr. SLATER. That is correct. But I think it is also important to underscore the fact that there we are talking about a limited number of dollars.

Mr. REGULA. I understand.

Mr. SLATER. So we have to make choices.

Mr. REGULA. Thank you, Mr. Chairman. Thank you, sir.

Mr. CARR. Thank you, Mr. Regula.

Mr. DeLay.

ROLE OF SCIENCE IN DECISION MAKING

Mr. DELAY. Thank you, Mr. Chairman, and I also welcome you to the Committee and am looking forward to working with you.

I want to expand on the questions asked by my colleague from Ohio, because Houston also has the same problem, and I didn't notice in your list that you have taken care of the Houston problem.

Ms. GARVEY. I have not heard about that one yet. We will make sure we do.

Mr. DELAY. And I am sure we will be visiting on that. But I appreciate what seems to be a very common sense approach to that problem.

I also serve on the VA–HUD and Independent Agencies Subcommittee that has oversight of the EPA, What concerns me greatly, and what I did not hear in your answer to Mr. Regula, is the approach that DOT and the Federal Highway Department is taking regarding good science. Let me explain what I mean.

In questioning Carol Browner on some of the policies taken by the EPA before her and the EPA under her guidance, I asked her the question about where does good science come into play when making policy decisions. And I am paraphrasing but, basically, her answer was, if good science gets in the way, they will push it aside for good policy.

That really concerned me. And I don't know if discussions are going on within the Administration or between DOT and EPA, regarding good science. We saw the discussion on the Floor of the House regarding the elevation of EPA to a Department level position and there was overwhelming support by both parties for a cost benefit or risk analysis type system when we make these kinds of decisions.

I am a conservationist myself, and I consider myself an environmentalist as well but I also consider myself educated in science, specifically, biology and chemistry and can recognize bad science—

policies that are being designed frankly based on bad science or bad conclusions or bad studies, and I think the jury is still out on the nitrous oxide argument and some others. So where does that play in the discussion that you are having with the EPA?

Mr. SLATER. Well, I think we have to take the position that good science and good policy are not mutually exclusive, that we can have both. And we have always tried to make our decisions based on reason and reflections and will continue to argue that case as we engage in this dialogue and debate with EPA. We will try to come to that decision that clearly balances, again, the interest of continuing to invigorate the economy while at the same time evidencing a sensitivity to the environment.

SOUTHWEST FREEWAY RIGHT-OF-WAY ACQUISITION

Mr. DELAY. I am glad to hear you say that, and I want to help you and be very active in doing whatever I can.

I have a meeting at 11 o'clock, Mr. Chairman. I will come back with most of my questions, but I want to take up one vital question and I don't know if you have the answers yet on this or maybe you can find them by the time I come back.

I want to talk a little bit about Highway 59 which is called the Southwest Freeway in Houston, which will be a big player, if we ever get to the I–69 situation, which I support and I know the chairman greatly supports, particularly in response to NAFTA and the North-South Middle America Freeway.

U.S. 59 is right now a top priority in the State of Texas, and I don't know where we screwed up, why the decisions were made, but there was a lot of money invested in the widening and redesign of that Southwest Freeway, but it stopped way short of all the growth in Houston, which happens to be my district and home county, Fort Bend County. It stopped at the county line. Fort Bend County has, for years, been one of the fastest growing counties in the Nation. For several years, Fort Bend County was the fastest growing county in the Nation, Now it is a top priority to widen U.S. 59 on down through the high-growth area and this discussion on the environment may have a problem with it.

Do you have an update on the right-of-way acquisition process on the Southwest Freeway from the Sam Houston Tollway to Highway 6, and are you or the State having problems with acquisition on that right-of-way?

Mr. SLATER. Let's address that this way, Mr. DeLay. We understand, as you understand, the importance of the Highway 59 project and also the I–69 potential here. We are working with all of the states involved in that process to come forth with the studies that are now under way to make the case for it.

What we would like to do, unless Tony has the specifics of the right-of-way acquisition now, is to come back later when you return with those specifics for you.

Mr. DELAY. I will defer, Mr. Chairman, then, and I appreciate your looking into that for me and I will run and be back later.

Mr. SLATER. Okay, thank you.

NASA ROAD 1

Mr. DELAY. Last year, plans were very much moving ahead for the much-needed expansion of NASA Road 1 which runs through a part of my district. This road connects the Johnson Space Center and its new visitors center to the major interstate that serves southeast Houston, I–45. This road also serves as the only hurricane evacuation route for those who live near Galveston Bay.

It is my understanding that progress has not been so smooth as of late because of indecisiveness on the part of one of the towns NASA 1 goes through. Two years ago, this Committee approved language that directed the Secretary to waive the non-federal share for NASA Road 1 near Houston, Texas. Last year, during this exercise, I asked for a clarification regarding this language and I want to thank FHWA for defining that language.

Well, for one reason or another, work is still hopelessly stalled on this project unless we can come up with a new set of ideas to clear up the problem. My biggest concern is that of safety and the fact that dirt has not been turned on an extremely high priority project. Many of my constituents are becoming increasingly concerned regarding the fate of this project and what, if anything, can be done to speed the process?

Do you have an answer to these questions and concerns?

[The information follows:]

The state is responsible for carrying out the project on NASA 1, and it believes the development of the project is progressing appropriately. This project has continued to be controversial along the business area of Nasa 1. The City of Webster has been opposed to the upgrading of NASA 1 through its business district and did not want any additional right-of-way to be taken. Due to the continued opposition of the City of Webster and the apparent stalemate on the project, it is currently proposed that another alternative be considered for the portion of NASA 1 from Interstate 45 to FM 270. The alternate proposed is a bypass route to be constructed to the south of existing NASA 1 from Interstate 45 to FM 270. This would require an additional interchange at Interstate 45 within a mile of the present interchange.

The total cost of the project is estimated to be $70 million along the existing corridor, with an additional $14 million if the bypass route is selected. Preliminary engineering and environmental analysis has been completed on the existing corridor. No preliminary work has been done on the bypass. Construction of the project along NASA 1 was originally scheduled to be done in three different contracts with the first to begin in October 1995. Should it be determined that the bypass route between Interstate 45 and FM 270 is the best solution to improve mobility and provide traffic congestion relief to this area, there will be some additional time required for preliminary engineering and environmental analysis on the revised routing. Provided right-of-way is acquired, and the portion of NASA 1 from FM 270 to SH 146 could possibly begin construction in 1995 as originally scheduled. Funding has been programmed for the widening of NASA 1; however, at the present time additional funding is not available for the bypass route.

SOUTHWEST FREEWAY AND I–69 PROJECTS

Mr. DELAY. The following projects are being held up because of money. The state has gone forward with various degrees of planning for nearly all projects.

Highway 59. U.S. Highway 59, the Southwest Freeway, is a top priority for the state to Highway 6. There are several questions regarding the ability for Stafford, Meadows and Sugar Land being able to pay their share of the ROW costs.

Do you have an update on the right-of-way acquisition process on the Southwest Freeway from the Sam Houston Tollway to Highway 6? Are you or the state experiencing any acquisition problems?

[The information follows:]

There are three construction projects involved in this section of the Southwest Freeway from Beltway 8 to SH 6. Approximately 80 to 90 parcels of right-of-way are needed; none has been acquired to date. Ft. Bend County will be acquiring the majority of the right-of-way for the projects. The county has also begun to solicit donations of right-of-way from affected owners with some success. No significant problems have been reported to date.

Mr. DELAY. Since Houston has no zoning, the city and the surrounding area has grown into many distinct separate areas some actually forming their own downtown. Right now, I guess you could say that Houston has three downtowns: The central business district, the Galleria area and the Medical Center. The population of Houston has been growing rapidly to the Southwest. In fact, for a few years running, Ft. Bend County was the fastest growing county in the nation.

TexDOT has plans to widen the Southwest Freeway not just to Highway 6 as stated earlier, but all the way to Rosenberg—some 17 additional miles. Given the astounding population increase in this area, what planning has already taken place and is being done to speed the priority process for this much-needed highway?

[The information follows:]

This project proposes widening the Southwest Freeway from four to six mainline lanes from SH 6 to SH 36 at Rosenberg. There is presently no funding programmed by the state for the project. Preliminary engineering for the project is estimated to cost approximately $2 million and construction is estimated to cost an additional $79.5 million. No environmental analysis or preliminary engineering work has been performed for the project to date.

Mr. DELAY. The traffic situation in this area has already reached a critical situation. Why has this much-needed project been put on the back burner until now? Was there no way to forecast the number of people that were moving into the area?

[The information follows:]

At the present time there is no proposed schedule for construction because there is no funding programmed. Due to the many projects competing for the limited funds that are available, this project has not been given sufficient priority to obtain funding. With traffic demands high on many routes in Houston and other metropolitan areas in the state, there are simply not enough highway funds to meet all the needs.

I–69 CORRIDOR

Mr. DELAY. Regarding the Interstate 69 proposal, what could this proposal mean for the improvements along the Southwest freeway? What is the time frame for decisions regarding the alignment and construction for Interstate 69?

[The information follows:]

The State of Arkansas is serving as the lead State in conducting a feasibility study for a National highway system corridor from Indianapolis, Indiana, to Houston, Texas, known as the "I–69" corridor. Texas is one of six states joining with Arkansas to serve as a steering committee for the feasibility study. It is expected that by this summer Arkansas will execute a contract with a consultant firm to undertake this study with the study completed in 15 months. Once a feasibility study is done, further decisions could be made regarding improvements to portions of the corridor.

HIGHWAY 35

Mr. DeLay. Representative Laughlin had Highway 35 widening from Angleton to Corpus Christi included in the ISTEA authorization. The state is moving forward accordingly on that segment. The most important segment, in my opinion, the segment from Houston southward to Alvin, then splitting off to Galveston—down 6—and Angleton, has been in the state's hopper for years. In fact, the move to make 35 a freeway from 45 to Bellfort has been in the idea stage officially since 1962.

This route serves as a hurricane evacuation route from the Galveston and surrounding cities area. Studies have shown that the existing set of roads is insufficient to evacuate residents in a proper amount of time in the event of a major storm.

Given the importance of this highway project, are there any provisions in ISTEA that can be identified with the funding of safety evacuation routes in coastal areas?

[The information follows:]

There are no special funding sources in ISTEA earmarked for the funding of safety evacuation routes in coastal areas. If the proposed evacuation routes involve Federal-aid highways, a state could use its regular federal-aid highway funds for this purpose.

CATHODIC BRIDGE PROTECTION

Mr. DeLay. Last year, I offered language regarding cathodic protection of bridge decks. This language stated that the FHWA should use this bridge protection application on all of their salt-damaged bridges. I have a company in my district, Colex, which is very involved with this process. In the past, there has been some difference of opinion regarding this process.

Has a consensus been reached regarding this process over at FHWA?

[The information follows:]

Yes, by all accounts, cathodic protection works on existing decks that show no visual signs of deterioration, when it is properly installed and maintained. Unfortunately, there are installations where the quality of the anodes, rectifiers, and controllers do not provide adequate performance. Specifications, bidding procedures, and construction quality all need to be implemented better. The FHWA encourages states that are constructing new bridge decks to use dual protective systems that consist of epoxy-coated reinforcing, good quality concrete and/or impervious surfaces or overlays.

Mr. DeLay. How much funding has gone into promoting this process?

[The information follows:]

FHWA has spent approximately $5 million in demonstration projects

Mr. DeLay. Has anyone been able to put a price tag on how much is being saved on the construction of new bridges and bridge decks because of the increased life cathodic protection provides?

[The information follows:]

No, but it is estimated that there are 4,000,000 square feet of bridge deck under cathodic protection. Conservatively estimating bridge deck replacement/rehabilitation at $50 per square foot, a savings of $200 million is obtained. Subtracting the cost of cathodic protection produces a net savings of $100 million.

METRIC CONVERSION

Mr. DELAY. Last year, I offered language that stated that no funding was to be used for the purpose of converting the signs on our Nation's highways to metric. Obviously, both the House and the Senate Committees felt very strongly about this issue and decided to include it in the fiscal year 1994 act. Has this language made clear the directive from Congress regarding metric road signs?

[The information follows:]

The language is crystal clear regarding Federal funding for message changes to metric signs for fiscal year 1994. However, for the long term, the intent of Congress is not as clear. Are states and local government expected to fund the metrication of highway signs as an integral part of the metrication mandated by Congress for the United States? Also, as we stand now, the odometers for new cars could read in kilometers and the distance markers along our highways read in miles. We have taken the position that we will not insist on sign message changes to metric units until Congress provides clear direction to do so.

DAVIS-BACON REQUIREMENTS

Mr. DELAY. It has been stated that onerous Davis-Bacon requirements, outdated labor rules that were introduced in 1931, tack on an additional 10 percent—GAO 1983—to Federal construction contracts. In some cases, this percentage is much higher. With this fact in mind, we find ourselves today tasked with funding billions of dollars worth of highway projects with ever dwindling Federal dollars.

Has the FHWA taken a serious look at the savings that could be realized if these outdated regulations were lifted for highway construction?

[The information follows:]

The FHWA has not taken an indepth look at cost savings that could be realized if the Davis-Bacon regulations were lifted because of the unlikelihood of such an action occurring, given the past positions/actions taken by Congress and the Department of Labor (DOL). However, we have traditionally opposed any expansion of the coverage of Davis-Bacon and have supported past unsuccessful attempts to raise the applicability threshold above the current level of $2,000. It is obvious that application of Davis-Bacon requirements add significant costs to the Federal-aid highway program and additional administrative burdens to the states. Further, such requirements also have the potential to adversely effect competition by requiring smaller firms to pay the same level of wages as larger firms, and thus discourages them from participating in Federal-aid highway projects. A growing number of these smaller firms are owned and controlled by minorities and women which we are attempting to bring into the Federal-aid construction program through the Disadvantaged Business Enterprise program.

In December of 1991, FHWA was asked to develop cost savings data for reforms then proposed by DOL, which included raising the applicability threshold to $250,000 and allowing the use of a "helper" classification. Using methodology developed by DOL and the Congressional Budget Office, we calculated a total savings of $946 million for fiscal years 1994 through 1997, (an estimated annual savings of $236.5 million).

Mr. DELAY. Using rough numbers, 10 percent of $20 billion is $2 billion. That is a lot of construction money that can be spent on important project all across the Nation. Given the savings, can FHWA get some feedback from the Department regarding this idea? I would be very curious as to how they react to the prospect of an additional $2 billion for highway construction.

[The information follows:]

Using ISTEA authorized funding levels, we estimate that approximately $16 billion dollars will be used each year (fiscal years 1994 through 1997) for construction contracts subject to Davis-Bacon coverage under current legislation and regulations. Using the General Accounting Office's 10 percent savings figure, annual savings to the Federal-aid highway program could be $1.6 billion.

We certainly agree that an annual savings of $1.6 billion dollars could be easily and readily utilized by all State recipients across the country. As we have already noted, the FHWA has traditionally supported and would welcome any reduction in coverage, either through as increase of the applicability threshold to a more realistic level or through complete statutory repeal. As far as the Department of Transportation's reaction, they have traditionally maintained a position similar to FHWA's and would welcome an additional infusion of funds into all of its grant-in-aid programs that such a legislative change would provide.

AIR QUALITY—HOUSTON'S NONATTAINMENT PROBLEM

Mr. DeLay. TexDOT officials have stated to me that the air quality problem in the Houston, Texas area is more of a geographical problem than it is an auto emission problem. In fact, it was stated to me that even if you eliminated every car, truck, and bus from the highways in and around Houston, it still would not be in attainment.

Has the FHWA taken a serious look at the nonattainment problem that faces Houston and the associated geographical location and climate of the region?

[The information follows:]

FHWA has been told that several areas may face this kind of situation. However, FHWA lacks the authority, resources, and expertise to conduct a meaningful review of these situations. The appropriate agency with the authority, resources, and responsibility to investigate the situation in Houston and other areas is the Environmental Protection Agency.

HIGHWAY DEMONSTRATION PROJECTS PROPOSED RESCISSIONS

Mr. Carr. I just want to recap before asking you questions about where we are in the overall big budget picture.

Clearly, we have a problem. The President's budget of February 7 indicated that the administration's intention with the proposed rescissions with contract and budget authority totalling $2.2 billion for 1994 and $817 million in 1995. The entire amount represented highway demonstration projects previously approved by Congress and signed into law by Presidents.

Under Title X of the Budget and Impoundment Control Act, only rescissions transmitted by special message have any stature and the administration, of course, never officially transmitted the rescissions portrayed in the February 7th budget.

What light can you shed on why they were never officially transmitted?

Mr. Slater. Well, I think the administration recognized from the very beginning that this was a very delicate, difficult issue to be addressed, and while the rescission of demos was one way of dealing with it, there are many others, as has been noted by Mr. Mead this morning.

I believe one reason the rescission list was not transmitted was because it was realized that there may be other ways to work out this shortfall, and to give us the opportunity and a little more time to do so. Hopefully, we can do that.

Mr. CARR. Well, we will have to, but it is a matter of interest to me why, knowing this was going to happen, why the administration did not make a proposal that it wanted to follow through with.

Mr. SLATER. Sure.

Mr. CARR. It has made a proposal, eliminate the demos, but then did not follow through. Now, the administration could have said, well, let's take down some of the demos and some of the money. The administration could have proposed any number of courses that Mr. Mead outlined or any combination thereof, as Mr. Mead said. It just kind of interests me why we end up in this situation.

Mr. SLATER. Sure. Well, again, I think from the very beginning, the administration knew that this was a very delicate issue. It also respects the role that Congress and particularly this Committee and others play in this whole process. So while the administration could offer its recommendation as to how to resolve it, there was some need, I think, to be sensitive to the things that you as Members of Congress have to grapple with. Since the administration did not send up the rescission list, we now have the opportunity to take all of that into account and come to a conclusion that we can all agree with.

But when you are trying to deal with deficit reduction and trying to hold true to a commitment to invest in infrastructure so as to stimulate growth in the economy and yet make hard choices, sometimes time runs out on you and you have to decide how you can handle some of those delicate issues by giving yourself a little more time.

I think the decision not to send up the rescission list was to say we are willing to look at this again; so that we be assured of having the kind of input that is necessary from the Congress to help us resolve this very delicate and difficult issue.

OPPOSITION TO CONTEMPLATED RESCISSIONS

Mr. CARR. Well, to your knowledge, did someone from Capitol Hill tell the administration, "Better not send up a rescission list, it is a delicate thing?"

Mr. SLATER. Well, I would say that Members from the Hill clearly expressed their opinion about the whole matter to the administration, and as I said, this is an administration that is sensitive to the important role that is played by Congress. After taking the initial step that was taken, it was determined that the best way to ensure that there could be a meeting of the minds would be to not submit the rescission list.

Mr. CARR. Do you know if any member of this Committee called up the administration and said, "Do not send up a rescission list"?

Mr. SLATER. I am not sure about that, Mr. Chairman. I am not sure about that.

HIGHWAY DEMONSTRATION PROJECT RESCISSIONS

Mr. CARR. Well, I don't know about the rest of my Committee, but I never called the administration and said, "Do not send up a rescission list." In fact, this Committee last year attempted the rescissions on a whole host of demonstration projects that were found by GAO to be holding huge unobligated balances over extended periods of time and there was another committee of Congress that contested our ability to make such a wise decision and, unfortunately, due to a parliamentary situation, they won that case.

I think this Committee is on record as being in favor of rescissions. Our dilemma here, Mr. Slater, is that ours is the Committee that has to struggle with the dilemmas posed here, and it seems to us unfair that other Members of Congress from other committees seem to have more influence with the administration on these matters than we do. That is our frustration.

Mr. SLATER. Sure.

Mr. CARR. And yet the administration comes up here and asks for our help on all these issues. I guess that is our frustration.

Mr. SLATER. Sure.

ISTEA AUTHORIZED DEMONSTRATION PROJECTS

Mr. CARR. Particularly when you consider that of the items on the rescission list that never were submitted, of the $2.2 billion, more than $1.7 billion represents projects authorized in ISTEA. We did not authorize them here. We did not appropriate them here. They were authorized in ISTEA.

All of the 1995 amount is contract authority of ISTEA authorized projects authorized by the Public Works Committee, not the Appropriations Committee. This comports with the recommendations of the Vice President's reinventing government study. Of the proposed rescissions recommended by the Gore report, more than 95 percent of the highway projects were authorized by the Public Works Committee.

It is also noteworthy that the $1.7 billion and the $817 million represent funding from 436 ISTEA projects; that is projects, demonstration projects authorized by the Public Works Committee. That means that 436 of the 539 highway demonstration projects in ISTEA, or 80 percent, have not started construction yet. It is a whopping number. That was the guideline that apparently the administration used. If a project had not started construction yet—you previously had intended to propose rescinding the funding.

Furthermore, 231 of these projects have not had a single dollar obligated yet. An additional 43 have had $100,000 or less obligated as of January 1st of this year. That represents 50 percent of the total number of ISTEA highway demonstration projects authorized by the Public Works Committee.

Have I said anything inaccurate here yet?

Mr. SLATER. No.

Mr. CARR. Is it fair to say that Member of the Public Works Committees contacted the administration—and said "Do not take away our hallowed authorization Public Works demos." Is that fair?

Mr. SLATER. Well, I would like to respond to the question in this way, and that is to say that this Committee has a great deal of influence with the administration and the administration is very sensitive to the predicament that this Committee, Mr. Chairman, you and the Members, are in. We want to work with you to resolve this matter, and with any other individuals or Members of other committees that have to be dealt with to address this issue.

PROPORTIONAL RESCISSIONS OF DEMONSTRATION PROJECTS

Mr. CARR. Well, it just seems to me that we would like to see, at least this Member of Congress, would like to see you propose some rescissions. Now, maybe not all the ones you had originally intended to propose. Maybe some we will not even agree with, but it seems to me this administration must propose some rescissions, particularly in proportion.

And let me say if you have a proposal on a project that was designated out of this Committee, we would love to see it. We would love to see proposed rescissions in roughly the proportion that projects are designated either by the Public Works Committee or the Appropriations Committee.

It is a frequent habit of administrations to propose rescinding only those projects that are designated by the Appropriations Committees, which are very few in number in terms of the total amount, and then leaving the Public Works Committees' designations held harmless.

It seems to me that it would be welcome if the administration were to propose rescission of projects in rough proportion to the number of total projects designated between Public Works and the Appropriations Committees.

Now, you have to find some on that list. The General Accounting Office helped us find some $60 million, I think. It wasn't a big number, but they helped us find some money that was sitting in the pipeline in a demonstration project that had already been built by other funds. And yet using the parliamentary labyrinth of the Congress, the Public Works Committee said, "Thou shalt never touch our funds." So as far as I know, that money is still sitting there. There were a couple of states that did not even know the money was there. A lot of these demonstration projects in ISTEA are not on a state approved transportation plan.

I had a head of an agency—State Highway Department—sitting here in this room last year who came in for a totally different subject, and he had no idea that there were some projects that were in his state that were demonstration projects. Well, it turns out a couple of these states did not know it all the way to the end of the project and then they found out there was a pot of money sitting there to pay for it. So then they tried to get it and could not get it. So the money is still sitting there.

So it seems to me the administration could at least propose what the General Accounting Office suggested to us or something similar, projects which everybody sitting around a table in good common sense say ought to be rescinded, and then help us with the situation that we find ourselves in to get the job done, persuade the Public Works Committees, testify as to what you are doing and why you are doing it and include them.

But the fact of the matter is that we just have to clean up this mess. It is really kind of a scandalous situation having all this money sitting around in the pipeline doing nothing in a way that is to demonstrate the political prowess of a particular Member of Congress, no criteria whatever attached to that stuff, and then projects elsewhere are going wanting, and we have the cries for full funding of ISTEA because we cannot afford to shut down some political egos, I guess.

I think public leadership really demands that the administration step up and help those of us who are trying to do the right thing, and this Committee tries to do the right thing.

Mr. SLATER. Mr. Chairman, you make a good point, and we will work with you in that regard.

I will say that we have had contacts with the Public Works Committee and the leadership discussing this very issue. Also, as was noted by Mr. Mead, we are trying to establish a tool that will go into effect—I believe he noted August of this year—to allow us to track better where we are in the demo process. But your points are well taken.

Dean, did you have anything to say?

DEMONSTRATION PROJECT CRITERIA

Mr. CARLSON. Just one short comment. FHWA has, to my knowledge, always opposed all demos. It is very difficult for us to go back and try to use some criteria to decide that some of them that we have always opposed are better than others, regardless of the origination of the demo.

Mr. CARR. Well, I am sure you are inventive. You can figure that out.

Mr. CARLSON. Thank you.

Mr. CARR. You are a very bright man. I know that you can do it.

Ms. STOLL. Mr. Chairman, if I may, I think that the conversation accurately reflects, in fact, what has happened. The language in the budget actually states that select demonstration projects will be rescinded.

Part of our conversations with staffs at this time, staff to staff, involves looking at the demonstration projects to see if there are not some that, in fact, there could be agreement with respect to their rescission. We are working this out and hopefully working it out effectively in the short term.

Mr. CARR. Well, we are going to try to work it out, too, with others in the Congress. I just want to be pretty forcefully on record on behalf of this Subcommittee, that, number one, we do not shy away from the notion that occasionally a Member of Congress may have information that will disclose that formula funding does not always fit every nook and cranny in the country.

But this Committee has been on record most forcefully, and we will do so again this year, that any time a Member of Congress proposes an exception to the formula funding rule, that they have to meet a very high standard with respect to economic criteria; that we are trying very hard in this Committee to end the notion that political prowess and political clout is what determines the designation of congressionally designated spending.

Rather, we appreciate the role politics will play in creating an awareness, but then the project has to be competed on the basis of economic merit with other similar projects around the country for scarce available funding. And we get a lot of applause from some commentators for our efforts here. We even get some applause from some of our colleagues occasionally here for doing that.

POLITICAL RAMIFICATIONS OF RESCISSIONS

Mr. CARR. What makes it so frustrating is when we try to do that, we would like some help from the administration. Because I think the American people and the reinvent government attitude says, we have to do things differently, and I believe the administration believes that. But then when it comes to a real key test of the willpower to make it happen, unfortunately, on this point, I think the administration just got cold feet and allowed the old way of doing politics to reassert itself.

So I guess this is just a plea for help. I know where your heads are, I want to help you do it. But you have to help us, too. And there will be forces around Capitol Hill who will have their noses out of joint, and let them. We have to think more about the American people and the outputs and the outcomes for their benefit as opposed to whose nose gets out of joint over who did not get their way on a particular day on a particular project for which there has been no money spent and the money is sitting in the pipeline so that nobody else can have it.

I think we should take that one on, and I would like hopefully to get some help out of the administration. I know I speak for the other Members of the Committee on this, too. We have struggled to try to do the right thing and we would like to feel our efforts are being rewarded so we have the incentive to do something more. But I have to say that the incentives so far are just to play the game the old way and let the chips fall where they may, and if the American people get mad at somebody and throw them out of office, well then, that is their tough dumb luck. Well, that is getting a little preachy and I am sorry.

Before moving on to another area, and I do have a number of questions, I would like to recognize my friend from Virginia, Mr. Wolf.

BELTWAY SAFETY INITIATIVE

Mr. WOLF. I thank you, Mr. Chairman. I was at my other hearing, so I apologize for being late. Secretary Bentsen was testifying.

I want to also second what the Chairman said. I thought he took a leadership role last year—the whole Committee did, with the establishment of criteria for projects. It was not very successful, but it certainly heightened a lot of interest. So I think he is right on target and he was really ahead of his time, but it does seem like things are just back to the way things used to be.

Concerning the Assistant Secretary, I want to again just raise my objection. I will not go into detail, but I want the record to show that I believe the Assistant Secretary's presence at these hearings has a chilling effect on the witnesses.

I have a number of questions and let me cover one. I want to congratulate you and thank you on behalf of all the people in the region for your leadership on the Beltway Safety Initiative. I mean, you saw a problem. The previous administration did, too. Things died down, but you came back. So I want to thank you for that and urge you to make sure—I have some specific questions we will submit for the record—that you follow up sometime this summer to make sure that the 52 recommendations are actually being acted upon.

Because a lot of times this is a "feel-good" measure and then everyone goes on, and another truck accident happens. But I want to thank you for your responsiveness.

Mr. SLATER. Thank you, sir.

Mr. WOLF. Also for prioritizing truck safety on the Nation's highway. In 1991, there were 320,000 crashes nationwide involving medium and heavy vehicles resulting in 4,800 deaths. So I want to thank you again for your prompt response here, and also how you treat it with regard to the budget.

SAFETY AND IVHS TECHNOLOGY

One question is, as you consider the new enforcement tools for the Beltway Initiative and, frankly, interstates nationwide, are you considering IVHS technology such as weigh-in-motion? What are you actually doing, because we have spent a lot of money on IVHS.

Mr. SLATER. That is correct.

Mr. WOLF. How are you marrying those two problems? Are you using some of the data?

Mr. SLATER. We are. As a matter of fact, one, I think, good example of the use of technology to deal with the whole issue of safety and truck usage is the rollover technology that we have on some of the ramps in Virginia and in Maryland. And you, Mr. Wolf, were very instrumental in that project.

Mr. WOLF. How have they worked? If they are not working well, I will not be offended if you tell me that. It is an experiment. How are they working?

Mr. SLATER. It is working well. As a matter of fact, we are monitoring it very closely because we think that if it works well here, we can actually replicate the implementation in other areas of the country. So we are watching it very closely.

Mr. WOLF. If you could give us a list so we could see some of the application of IVHS around the country based on the amount of money that we have spent.

Mr. SLATER. Sure. We can do that.

[The information follows:]

While considerable funds have been spent on the IVHS program to date, systems are already being deployed and we are definitely seeing benefits from these systems. A few examples are described below:

The Santa Nella, California truck weigh station has been operating for over a year as part of the Crescent Operational Test. The Crescent program includes approximately 40 sites ranging from British Columbia south to California and then east to Texas. The Santa Nella site will serve motor carriers equipped with a special transponder. Truck weight, registration, tax and regulatory credentials will be electronically inspected by in-pavement scales and readers, eliminating the need for the usual weigh station stop, which can take from 10 to 30 minutes.

In Long Island, New York, the INFORM project is operational and has demonstrated that drivers will divert to less congested routes if presented with reliable and credible information, creating significant travel time savings for local commuters.

Prior to the January 1994 earthquake, the IVHS system operating in the Smart Corridor in Los Angeles was producing significant savings in travel times, signal delays, and vehicle stops, leading to reductions in fuel consumption and vehicle emissions. Since the earthquake, the system components on the arterial streets have facilitated the diversion of traffic from the badly damaged Santa Monica freeway.

In the Denver Smart Bus Project, the Denver Regional Transportation District (RTD) is installing a fleet management and control system as part of an upgraded communications capability. Using vehicle location inputs from a GPS system, the Denver smart bus project identifies off-schedule buses and automatically determines an optimal strategy to get them back on schedule. The system is installed on all 788 RTD buses, and on 28 supervisory vehicles. The project also uses the information to inform passengers of schedule adherence and delays so they can better plan their travel.

Right here in Northern Virginia, Fairfax County is installing an advanced computerized signal system that will control the timing of approximately 700 traffic signals throughout the county. From a central location, a computer will be able to determine the best timing, based on current traffic flows, to reduce unnecessary stop and delays at traffic signals.

Recognizing the potential for IVHS products and services, numerous private sector firms are already in the IVHS marketplace. For example, Vorad Safety Systems is marketing a radar-based collision avoidance system, which Greyhound Bus Lines is using in a large-scale implementation of the technology. Navigation Technologies and ETAK, two California-based firms, are focusing on electronic mapping needs for route analysis and display.

BORDER TRANSPORTATION

Mr. SLATER. If I may, I will say one area where we think a lot of it can be used is along the border, as we try to fully implement NAFTA.

Mr. WOLF. Are there any plans to actually do something along the border? Is that just an idea or——

Mr. SLATER. There is a plan. We have a tri-national summit, transportation summit, that is coming up on the 25th of March, and we hope at that time to actually have an agreement, some agreements, with our counterparts in Mexico and Canada as to how we can work together to really make this happen along the borders. We will keep you informed of that.

Mr. WOLF. I think you will be asked two or three years from now, "Was all this money worth it?"

Mr. SLATER. I agree with you. Your point is well taken in that regard.

Mr. WOLF. Some people may view it as pork barrel type thing, money was spent and given to different groups and nothing ever——

Mr. SLATER. That can happen. But one thing we are doing this year with our research and development programs and IVHS activities is to focus on deployment, because we are getting a lot of additional resources in that area and we want to put it on the street for the public to enjoy as best we can. And we know that that is a concern that you have as well.

INVOLVEMENT OF OTHER COUNTRIES IN IVHS TECHNOLOGY

Mr. WOLF. Where are we in relation to the Japanese and the French and other countries?

Mr. SLATER. I think that you mean as far as our leadership position?

Mr. WOLF. Yes.

Mr. SLATER. I think that because of the strong position that Congress took in the 1991 ISTEA legislation, where you proposed significant investment in technology, and also because of what is happening in the private sector as relates to IVHS America, that we are in a very good position when it comes to being on the cutting edge of the use of technology in enhancing the system that we currently have in place.

Mr. WOLF. Are we number one?

Mr. SLATER. I would say we are a leader among leaders. I would think—in most respects, we are, but quite frankly, Mr. Wolf, in some areas, some of our competitors are in as good shape as well.

Mr. WOLF. When I attended the hearing the Chairman had at the Sheraton about IVHS, there were a number of Japanese running around the place taking pictures and picking up all the brochures. Also the membership of IVHS America is open to foreign companies. What are your feelings about this? Does that trouble you at all?

How do you know this technology is not being translated and taken offshore?

Mr. SLATER. That is a good point. I think in this area, we are good teachers in some respects and in some instances, we are good students. What we are trying to do is gain as much insight as we can about what is happening around the world in the use of technology so as to enhance our transportation systems. So we are learning in many instances, which means that we have to know that other people are learning from us.

I will say that the point you raise is not one that we are not mindful of. We have talked about it among ourselves, and I know there is a lot of focus now on economic espionage.

INTERNATIONAL COMPETITION

Mr. WOLF. Well, there is. The French were bugging the first class section of Air France. They also were going into hotels when businessmen left and photographing everything. I understand last year FAA actually had a person from the French Government on their staff, and how do you know that person was not taking data out?

We used to make television sets. We do not make any television sets in the U.S. and we developed the technology. We also developed the VCR technology. There are no American-made VCRs. I think this is important. If it is going to be as good as we are led to believe that it is, then I see no reason why the Japanese and the others are not going to push ahead to try to modernize their automobiles for IVHS so that in 1999, when a Japanese Honda is going head to head with a GM car, this could be the deciding factor whether a person buys a foreign car or buys an American car.

I was a little troubled with the bylaws in the IVHS America, the fact that Japanese and the other foreign interests are allowed. I think you should be very, very sensitive to it, because if we lose the technology, it could hurt the automobile business, which is very important to our economy, not just manufacturing of the cars, but the seats and the leather and the plastic and the tires and on and on and on.

I don't know that anybody is really focusing on that. I think people say, well, it is a problem, but if you could just be sensitive to it, I would appreciate it.

Mr. SLATER. Well, we are sensitive, but let me—Mr. Carlson has a point he would like to make.

Mr. CARLSON. A couple of things. Number one, I remember well our hearing last year and I wanted to tell you that all the AA's that are here in the room read the book that you recommended to us, as did I.

Mr. WOLF. Great.

Mr. CARLSON. It is kind of a startling picture that they draw. We are concerned about competitive advantage, obviously, and IVHS America, whose board we sit on, is going to be doing a study comparing the progress of Europe and Japan in the IVHS area so that we will not have, in the athletic analogy, an exact fix on number one. We will know where we need to concentrate our efforts to make darn sure we do not become number two or three.

And the second thing is, it seems to me all along that the corporation that comes up with the system architecture, the communication links that will be the driving standard, are the ones that are going to have the advantage in that area. I believe in my conversations with Japanese and others, that we probably are either number one or very close to it.

And the only other comment I have is that we have assigned on a temporary detail a person to the Japanese research organization who is working on their staff. I think maybe we should always learn from anybody that we can, so maybe we can do some of the same kinds of activities.

Mr. WOLF. Well, I guess so. Be careful, because they are just trying to gain a competitive edge. I think it is something we have to be careful about and the automobile companies have to be careful, and I want to make sure American tax dollars are not going to develop a system which the Japanese or the French or whoever it is, is taking to use. If we are just conscious of it all the time so we do not end up having an Aldrich Ames at the Federal Highway Administration giving away the data, or being hired by the Japanese, or by whoever.

I will ask you more questions for the record on the Beltway and some of the other safety issues regarding trucks. We covered the automated ramp, so I will not ask you that, but for the record in a little more detail.

RADAR DETECTOR BAN

Mr. WOLF. One, I want to thank you again and toss you a bouquet, you and the Secretary, on moving ahead on banning the radar detectors. But I guess the next question is now what? Because they are banned, but there is no punishment for using them. My sense is they are still—I don't think anybody has disconnected a detector based on the ban. But I don't mean to minimize what you have done, because I understand the lobby against it was very, very strong.

What is the next step to enforce that?

Mr. SLATER. We are working closely with the states to effectively enforce the provision. Also, the additional MCSAP funds will make it helpful to us and the states when it comes to putting the number of people on the ground to help us fully implement the provision. But we are working very closely with the states. The item can be confiscated, and we are looking at other penalties as well.

Mr. WOLF. When do you expect to come out with something with regard to that?

Mr. CARLSON. We issued a memorandum to the field on March 4 this year that provides some strategies for how the federal and state enforcement of the radar detector rule might work. In our initial poll, 36 of 38 states that responded said that they are going to enforce it, and the various methods range go from confiscation to issuance of warnings. There will be a phase-in, obviously, I think that will uphold penalties.

Some states will need to pass penalties as well in order to do this, but I think we have the ball rolling and we have some guidance as to how they want to approach this under MCSAP.

Mr. WOLF. Several states passed bans and rolled those bans back, Connecticut being one, and some others. So with the lobby that the radar detector people have, and I think questionable ethical operations in the way they fight these things—and let the record show I believe they are questionable, ethically—then I think we are going to have to be careful.

And if you are going to ban smoking in the military, which I saw today, so I certainly think you can ban this and enforce it. You should be commended. This is not criticism because other people did not want to move in.

Mr. CARLSON. One of the major things they have come at us within the correspondence we have received is how come us, trucks, and not cars; that cars are not altruistic and they have that detection device there for a purpose and it is the same purpose.

The answer that we have been giving to that is, that may be, but we do not regulate cars, cars are not 80,000-pound vehicles. But we are trying to cope with that issue.

Mr. WOLF. Right. And they are not carrying flammable liquids and things like that.

Mr. SLATER. We are continuing to be aggressive. I don't think anybody has mentioned it, but we have been sued.

Mr. WOLF. I didn't know that. By?

Mr. SLATER. Some of the trucking groups. I saw a reference to it in one of the trucking magazines and we are looking into that.

Mr. WOLF. I would be interested if you could send it for the record. But let me know who is suing you, I would be interested in knowing.

[The information follows:]

The Federal Highway Administration (FHWA) is being sued by the Radio Association Defending Airwave Rights, Inc. (RADAR) and Mr. Frank Figuero, a commercial motor vehicle (CMV) driver, to set aside the recent regulation banning the use of radar detectors in CMVs.

INSPECTOR GENERAL MOTOR CARRIER AUDIT

Mr. WOLF. Let me say for the record, too, you may want to acquire from the Inspector General all of their reports about everything dealing with your agency. Some of the IG reports that I have seen dealing with the FAA are actually shocking, and I think it would be helpful to make sure that every administrator gets the IG reports and reads them.

In June through August of 1993, the Office of Inspector General conducted an audit of the Motor Carrier Safety Assistance Program in Region 3, which includes my state. The OIG found although Virginia and the District of Columbia generally establish controls over the program, there are some problems.

For example, in Virginia and the District, they were not achieving the Federal Highway Administration's 25 percent requirement for conducting off-peak hour inspections. As another example, summons or citations were not always issued when a vehicle and driver were placed out of service. For Virginia, this was true of 52 percent of the out-of-service actions. It was also found that fines assessed for out-of-service violations did not reflect the unsafe conditions of the vehicle and the drivers.

The question is, this is a draft report and my understanding is that you, Federal Highways, have not seen it or responded, but can you tell the Committee whether a similar study has been performed on compliance in other regions, and if so, are you finding the situation in other regions the same as this region?

Mr. SLATER. Mr. Wolf, if we may, could we call on our Associate Administrator for Motor Carriers to respond to that? He is George Reagle.

Mr. REAGLE. Let me say several things. One, there have been studies of out-of-service, which is the major issue you brought up. That has been a congressional issue since 1988. It was looked at in 1988. The agency has looked at it, several States have looked at it. From my perspective, I don't think we have done as much as we should.

We have seen a problem in the magnitude of about 9 percent to 28 percent; that is, of those problems that should have been fixed were not fixed. We need to do several things. One is to take a new look at the whole issue. Second, we will have some rule out soon on the CDL, which ties CDL to qualifications and also ties in the issue of out-of-service. So if somebody moves their vehicle and they have a CDL, there will be a disqualifying on their CDL.

So we need to do that, but basically we need to look at the whole issue. One of the things I would propose to do with our whole MCSAP program is begin a peer review, have certain people from other States come in and look at other States, and I think that will begin to unravel some of these issues. And two things will happen: We will get quality control of the program and we will get transfer of good ideas.

But this whole issue of out-of-service is not a new one. It is one that has plagued the program for a long time as I have looked at the history of it since about 1988. I think we really need to stand back and take a fresh look at it and we will do that.

Mr. WOLF. We have a new governor in Virginia, Governor Allen, and I will send this to him and to his people. Have you all met with Secretary Martinez?

Mr. SLATER. Not yet. I look forward to the opportunity. Mr. Carlson has met him.

Mr. WOLF. He used to work at the DOT and seems like a very capable person, and he is very cooperative. So we will get this and let him take a look at it to see what the Commonwealth is doing, and if you could let us know if you are going to do these other audits or how you work it out, I would appreciate it.

Mr. REAGLE. We will.

Mr. WOLF. I am kind of rushing because I know the chairman has other questions. I have one large issue which I will save to the end. IVHS—I will submit that for the record.

FEASIBILITY OF ADDITIONAL LANE ON 14TH STREET BRIDGE

An issue that Mr. Carlson is an expert on, is the reversible lane on a Potomac River bridge, the T.R. Bridge. I know you got in late today because they did not move the barrier.

Mr. CARLSON. I came in on Rt. 50 today.

Mr. WOLF. Today the area, every bridge, 14th Street Bridge, T.R. Bridge, Memorial Bridge, was messed up because that reversible barrier was not moved. Apparently they had a problem with the engine or something like that. I remember when we came up with the idea of a reversible lane, people said it was crazy, but that has made life so much better for area commuters.

The question for you, Mr. Carlson, is: We had talked about last year looking at the 14th Street Bridge. It is not in my district, but I think it is a mistake not to deal with the 14th Street Bridge—with the backups that are taking place in the morning—by adding a similar lane. What is the ballpark figure you think it would take if we did this on the 14th Street Bridge.

Mr. CARLSON. Well, the 14th Street Bridge is so different in that it is essentially three separate structures.

Mr. WOLF. But the main one going in, off to the right, particularly the traffic coming down the G.W. Parkway, and I don't go that way, coming down the G.W. Parkway up the loop and then taking the 14th Street Bridge over, coming from Woodbridge to Arlington and places like that, it is gridlock there. And to add, my sense tells me from having driven it, I kind of hold a highway hearing in my mind every morning, that that would really make a difference.

Mr. CARLSON. Well, the problem really is capacity across the bridge. You can give preferential treatment to the people coming off that very narrow loop or you can give preferential treatment to the people coming from the Pentagon and on 395 through that area.

Mr. WOLF. Why could we not add another lane?

Mr. CARLSON. You can add another lane and we have costed that out before, but what you run into there is we have limited ability to get Virginia to set their priorities. I know that one of the things that Virginia DOT has been very interested in the last few years, for three or four years, has been working very hard at trying to do something with the Woodrow Wilson Bridge. That would take some stress off the 14th Street Bridge, although the traffic counts are a bit ambiguous. But there is just not enough capacity across that structure. Widening it would help. It definitely would help.

But we cannot—if Virginia elects to use their Federal funds to do that, we certainly are there to work with them and would be happy to help them any way we can, but it is really a decision that we can only use influence on. We cannot direct it.

Mr. WOLF. Do you think it would be a good idea?

Mr. CARLSON. It would certainly—it would move a bottleneck certainly across the river. Whether or not the Southeast-Southwest is capable of carrying the additional traffic that might come through, that is an interesting question I am not sure we have looked into. We have looked at the cost.

Mr. WOLF. Have you looked at how many accidents take place at that——

Mr. CARLSON. It is a bad situation. It is kind of, I guess in common vernacular, a chicken game on the part of the people coming up on that ramp. They decide when they have courage enough to stick their nose out.

Mr. WOLF. The less traffic, the more dangerous, because——

Mr. CARLSON. Traffic moves faster.

Mr. WOLF. Yes. Could you have somebody check to see how many accidents have actually taken place. I am going to suggest this to the new governor. And just watching this thing, it just does not make sense. People in Alexandria, which again I have to be careful for the record. I do not represent the area. My district is the Shenandoah Valley to the Blue Ridge Mountains, and I go west. But when I watch it, it seems crazy nobody of any intelligence is speaking up to say you can deal with this problem.

Mr. CARLSON. The Alexandria people get a free lane as it presently is operating. It is the ones coming from the G.W. Parkway and Arlington who really have the trouble. And what I would suggest to you, for the record, is that we might give you an indication of the cost and we will look at the accident performance of that loop ramp. We can do that.

Mr. WOLF. If you could, and then I will get it to Secretary Martinez and to Governor Allen.

Mr. CARLSON. All right.

[The information follows:]

The construction of a reversible lane on the 14th Street bridge would be difficult for two major reasons. The first is the one you already cited—the 14th Street bridge is actually two widely separated structures, one for northbound traffic and one for southbound. The second reason is that another structure, originally intended for HOV but currently open to all traffic, is located between the two 14th Street bridges. A reversible lane scheme would require new approach ramps on each end of the bridge. Almost all available land on both ends of the current bridge is already used by existing ramps and approach roadways. The reversible lane approach ramps, if a location could be found, would have to be grade separated with flyovers to avoid conflicts with the center bridge and approaches. A ballpark cost figure for the total project is $30 million. There would also be a permanent operational cost associated with moving the barrier on a daily basis.

The existing 14th Street Bridge is 741.9 meters (2434 feet) long. If one 4.9 meter (16 foot) lane plus shoulders were added, the total added area would be 3635 square meters (39,131 square feet).

The cost of the bridge would be relatively high because the piers would require widening and the architectural facing would have to be removed and extended. Assuming the construction cost to be $3230 per square meter ($300 per square foot), the cost for the addition would be about $12 million. This estimate is for the bridge portion only and does not include environmental and design studies, clearances, permits, approach modifications, etc.

BID RIGGING

Mr. WOLF. Last year we were talking about the so-called investment supplemental. There was concern, if you recall, and I take my hat off to the chairman for his hearings, which I think made a difference. There was concern that the rush—if you recall, the states all came up with projects. Frankly, I don't think a lot of you agreed with the projects you came up with. It is like they were running through the building saying, "Got any projects to get in the package?" There was concern the rush to obligate the funds would encourage the problem of contract bid rigging.

The Office of Inspector General did testify she plans to prioritize this issue for fiscal year 1995. She has indicated perhaps the most effective tool to detect and prevent bid rigging is a computer program called BAMS, which was developed by AASHTO and available to all states. The problem is there are only three states using it. Any thoughts about the other 47?

Mr. CARLSON. It is an issue, again——

Mr. WOLF. How does it work? I don't completely understand the system.

Mr. CARLSON. Well, it used to be that the bid tabulations of unit cost and the extension to the costs of the contract were done all manually. Now, we have gotten to the point where almost every state, in fact, I think every state does all their bid analysis by computer. And having that information in the computer allows you to do certain tests of the information.

And I would have to say it is a probability test that tells you, based on the patterns that are in the bidding on the individual unit prices, whether there is collusion, whether there is repetition, whether there is an indication that there have been courtesy bids, which is a term that is common in the industry. The system does work. It was actually, I think, developed in cooperation with Federal Highway Administration.

BIDDING ANALYSIS AND MANAGEMENT SYSTEM (BAMS)

Mr. WOLF. Why are the other states not using it? Did you use it in Arkansas or what are the three states using it?

Mr. CARLSON. I would have to furnish that for the record. I don't have the list of states that are using it with me.

[The information follows:]

In 1985, AASHTO purchased the Bidding Analysis and Management System (BAMS) from Info-Tech and made it available to member states. Currently there are 30 states using one or more of the BAMS software modules, see the attached listing. These states are licensed by AASHTO and pay an annual fee for using BAMS. There are presently five software modules available for the BAMS program to address state highway construction contract administration needs. The decision support system (DSS) module was developed initially for the state of Florida to detect bidding irregularities. DSS is licensed by 30 states. In addition, the letting and award system (LAS) module can be used to identify "unbalanced bidding" and "complementary bidding" patterns. LAS is licensed by 17 States. The other three modules, which are not used for bid rigging detection, are the cost estimating system, the proposal and estimates system, and the construction administration system. Arkansas is licensed for both the DSS and the LAS modules.

The FHWA supported the development of BAMS and has encouraged its implementation by the states. In addition, FHWA staff actively participates as ad hoc members of AASHTO's BAMS user groups and user technical advisory groups. As to why 20 states, Puerto Rico, and the District of Columbia have chosen not to implement BAMS, we really have no hard information. However, it may be that they have established alternate processes and can not justify the additional resources.

BAMS Licensing Status

STATES	MODULES					STATES	MODULES				
	DSS	CES	PES	LAS	CAS		DSS	CES	PES	LAS	CAS
Alabama	▲					Nebraska	▲	▲	▲	▲	▲
Arkansas	▲		▲	▲		New Jersey	▲				
California	▲	▲	▲	▲	▲	New Mexico	▲		▲	▲	
Colorado	▲	▲	▲	▲	▲	New York	▲	▲			
Connecticut	▲	▲				North Carolina	▲				
Florida	▲					Ohio	▲	▲	▲	▲	
Georgia	▲		▲	▲	▲	Oklahoma	▲	▲	▲	▲	▲
Indiana	▲	▲	▲	▲	▲	Pennsylvania	▲				
Iowa	▲		▲	▲	▲	South Carolina	▲				
Kansas	▲		▲	▲		Texas	▲	▲	▲	▲	▲
Kentucky	▲	▲				Virginia	▲	▲	▲	▲	▲
Maine	▲	▲	▲	▲	▲	West Virginia	▲		▲	▲	
Maryland	▲					Wisconsin	▲				
Minnesota	▲	▲	▲	▲	▲	Wyoming	▲	▲	▲	▲	
Missouri	▲										

AASHTO member agencies licensing BAMS ▲

Mr. WOLF. Do you think it would be worthwhile for all of them to use it?

Mr. CARLSON. We have advocated they use it or similar systems that they may develop. Some of the states have other computer programs that they use to essentially get at the same thing. They may not call it the same thing, and at some risk here, I would say that AASHTO, as an organization, is in the business of trying to recover costs. Some states may have their own technique that may be as good.

Mr. WOLF. Can you look at that and get back to the chairman and Committee as to what states are, what states are not, and if you think it is appropriate that you exercise some leverage or encourage the states that are not using it, because this comes in waves. We had it in the Commonwealth years ago, bid rigging, corruption, and then it goes away and comes back.

We have not had it for a while. Maybe things are fine or maybe it is going on and we are not aware of it.

Mr. CARLSON. One of the things you have to remember is that in bid rigging you can get patterns of problems, but you cannot really convict on patterns of problems. To quote a lawyer that worked for FHWA at the time, he said, "You have to find the canary that is willing to sing," so you have to have somebody in some contractor's organization who is really willing to open up.

And once the cards start to fall, that is why you get this repetitive pattern. We have been quiet in this area for the last two or three years, more than we had been in the past.

BID RIGGING DETERRENCE

Mr. WOLF. With the increased infrastructure funding coming out, which we can commend, there may be an opportunity to be doing something wrong now that they think people are not watching. Let us know.

Mr. CARLSON. We will do that. I guess that we do watch the output of these computer programs and maybe we do not have the problem that we had 10 years ago. I am certainly hopeful that is the reason.

[The information follows:]

The FHWA, recognizing that the authorizations contained in the 1991 Intermodal Surface Transportation Efficiency Act significantly increase the funds available for highway construction within the Federal-aid highway program and in turn will provide greater potential for bid rigging, has taken the following steps to deter bid rigging:

—Requiring the division offices to perform a review of the states' contract administration policies and procedures on a 4-year cycle. Review of a state's bidding and estimating procedures to identify those that may be conducive to bid rigging is part of the review.

—Distributing information on and encouraging the use of the OIG's telephone "hotline" to provide information on bid rigging activities.

—Assisting the OIG, as appropriate, in bid rigging investigations. The FHWA field offices have been directed to keep the OIG informed of questionable activities or bidding peculiarities that they become aware of in their dealings with the state highway agencies.

—Assisting the DOJ, as requested, in prosecution of bid rigging offenders.

—Implementing procedures for suspension and debarment of individuals and companies involved in bid rigging activities, pursuant to 49 CFR Part 29.

—Supporting the development and implementation of computer software (i.e., BAMS) to assist the States in the detection of bidding collusion.

—Requiring all bidders to provide as a condition of bid submission a noncollusion certification.

We are not aware of any significant bid rigging investigative or prosecutive activity by either DOJ or OIG nor of information from field offices of significant states attorney general activity.

CORRIDOR H EXTENSION

Mr. WOLF. The two last questions, and one you may have to answer for the record; the other is, I saw it in the Chairman's questions and I am just going to raise it. But there is a road in my area out in the Shenandoah Valley, Route 55. Are there any current plans to add that to the National Highway System?

Because there is an effort to widen that into a four-lane road. We do not want it, we do not need it, and maybe you want to look at that for the record and just call me.

Do you know? No?

Mr. CARLSON. We have not had any correspondence on that particular route, Congressman Wolf.

Mr. WOLF. Senator Byrd is interested in it, in West Virginia, and I am definitely not interested in having it——

Mr. CARLSON. Is this the extension of Corridor H?

Mr. WOLF. Yes.

Mr. CARLSON. Okay, then we have had much correspondence on it.

Mr. WOLF. Yes. We do not want it. They can build it up to the Virginia line, but it would go through some of the more pristine areas, and I think it would be wrong. My understanding is the new Governor is opposed to it, and everyone out there.

I have walked it, and we have looked at the traffic counts. It just does not justify turning it into a four-lane road. You might want to widen it and put some barriers and have a truck passing lane or something like that on a big hill, but we do not want it embedded into the highway system where all of a sudden somebody comes up and says, well, it is there and now we have to fund it.

Senator Byrd is interested in it, but I just do not want to do it, and we want to make sure it does not get into that.

Mr. KANE. We are looking at further alternatives on exact locations. In June 1994, there will be a new study done that I am sure you will want to look at, and we will be reacting at that time.

BOSTON CENTRAL ARTERY PROJECT

Mr. WOLF. The last question, and this is really the chairman's—I looked at material he has here—and that is the central artery, third tunnel project, and I don't know if you were going to reach it or not, but it talks about the Inspector General has done work on the central artery project located in Boston.

And I would say to the Assistant Secretary, to cut the IG is like cutting the needle manufacturer office for the hospitals. It is really a bad budgetary thing as well as an ethical thing. I have made the comment in my other two committees. The IG, when Senator Byrd wanted to move to West Virginia the CIA, we could not find anybody who would come forward. We could not get the data until the IG did an investigation. It was all undercover, black box, cannot tell you, if I tell you, I have to kill you, this thing is so secret.

The IG came out and saved the day. That is why I feel very strongly about IGs. But the IG work raises several issues that I want to explore.

Is it accurate, the total cost of the project has increased by more than 250 percent in less than 10 years from $2.5 billion in 1985 to $7.7 billion currently? And then I was told the latest estimate of $7.7 billion is in 1992 dollars, and when escalated to present year dollars, the total is $8.5 billion.

This is a big—the Secretary is interested in the AAS plan, and I think he is doing what he has to do and aggressively. But this one project is basically in competition with every other project in the State of Massachusetts and perhaps in competition with the whole country.

Have you looked at it or do you have any feelings about this project?

Mr. SLATER. Yes. I have, number one, visited the project site; number two, I am knowledgeable of the IG report that was put together dealing with the project. We are following it very closely.

Our staff has been meeting with the IG staff to work out some concerns we have about some facts that we disagree with. But, clearly, we are engaged with the IG and we are trying to deal with this matter in an effective manner.

Mr. WOLF. Should we cap the project? Would that be——

Mr. SLATER. It is our position that it is capped; that the interstate construction monies are capped; that after we give them an allocation, I think October of this year, that there will be no more commitment when it comes to interstate construction funds. So it is capped.

Also, when the state makes its decisions about how it allocates funds, it has to take into account the very point you made, that a project of that size could have an adverse impact on its ability to respond to the needs of the entire state. But that is where state leadership will be making a judgment in that regard.

Clearly, we will be working with them, but——

Mr. WOLF. Will you favor giving them additional funding? There is some talk they may ask for additional authorization.

Mr. SLATER. I would have to say no at this point, because we have made a significant commitment to that project over the years. And there is going to be a shortfall and the state will have to be creative in coming up with that shortfall.

We do not think it would be appropriate for us to dictate to them that they cannot use the resources that we allocate to them through the formula program.

Mr. WOLF. I understand that. I say to you, Massachusetts, Worcester has to fight Boston who has to fight Marblehead. That is your problem. You make it up.

Mr. SLATER. Exactly.

Mr. WOLF. Well, that is fair. I appreciate your comment. I think to put another authorization of a billion or a billion and a half in this, there would really be something—and that program, Minding Your Business, whatever they call that guy, Jennings, is going to do a piece on this and people are going to say, wow, you have to be kidding me.

I think your position, as I understand it, is really the right position. I don't know how the other Committee members would feel, but I would think that——

Mr. SLATER. If I may, let me also say we are working with the state to get a financial plan for the completion of the project. We think that that is a proper step to take as well.

Mr. WOLF. Of course, these things, you know, are funny around here. I voted for the emergency supplemental, and then one night I was home watching the news and I found out Senator Mitchell put money on for a potato blight up in Maine, and I saw they put more money in for the FBI in West Virginia and I didn't know that.

So I think this is something we have to be careful about because we are dealing with the taxpayers' money. We get these late night emergency supplementals; have to have it; it is October; I have to get home, and all of a sudden there it is and you have this situation.

Well, good, I appreciate having that on the record. I will submit the other questions for the record.

PERSONNEL REDUCTIONS

Mr. WOLF. Your personnel reduction amounts to 60 employees, or about 1.5 percent of your fiscal year 1994 level of 3,909. You may be aware that other offices in the DOT are taking a greater hit in the budget, such as the Office of the Inspector General which is taking a 9 percent reduction. Especially since the OIG serves as the "beat cop" of the DOT, this seems a rather Draconian cut for such a small office. This is particularly so when you consider that this office saved or recovered $4 for every investigative dollar spent last year.

Can you share the rationale for this disparity in personnel cuts to be absorbed by the various modes and offices in the DOT?

[The information follows:]

Although we have not been informed of the personnel reductions made in other DOT modes, Executive Order 12839 initiated an "across-the-board" personnel reduction of four (4) percent by the end of fiscal year 1995. Therefore, we assume that, in addition to FHWA other agencies took a cumulative personnel reduction of four percent.

Mr. WOLF. Why is FHWA's contribution to the administration's reduction of 100,000 positions comparatively small?

[The information follows:]

The FHWA's contribution to the administration's reduction of 100,000 positions was calculated based on Executive Order 12839 which mandated a 4 percent reduction of personnel (FTE's) by fiscal year 1995. The Executive Order directed that 25 percent of the reductions be achieved by the end of fiscal year 1993, 62.5 percent by the end of fiscal year 1994 and 100 percent by the end of fiscal year 1995.

Our fiscal year 1993 base from which these calculations were made was 4,011 FTE. Our total reductions amounted to 160 FTEs: 40 FTEs in fiscal year 1993; 60 FTEs in fiscal year 1994; and 60 FTE in fiscal year 1995. Of the 60 FTEs in fiscal year 1995, 52 are identified as GOE FTE.

Mr. WOLF. If the buyout proposal is not approved, will you be able to achieve these personnel reductions through attrition?

[The information follows:]

Yes, but the buyout legislation would assist us in reshaping our agency to better meet the goals of the NPR.

Mr. WOLF. Are these 60 positions primarily in middle management?

[The information follows:]

Attrition is fairly random in nature. We will target middle management positions to some degree by simply not filling those types of positions when they are vacated. In addition, our recent receipt of "early out" approval will also help us to reduce middle management positions, since many of the senior employees who are eligible for early outs are occupying middle management positions, and as they retire we will not fill behind all of those positions. However, without employee buyout legislation to assist us in our organizational reshaping efforts, we may have a tough time meeting both our employment reduction and supervisory streamling goals for subsequent fiscal years.

TRUCK SAFETY ON CAPITAL BELTWAY

Mr. WOLF. Again, I would like to publicly thank you, Administrator Slater, for prioritizing truck safety on the nation's highway network. In 1991, there were 320,000 crashes nationwide involving medium and heavy vehicles, resulting in 4,800 fatalities. With truck traffic along interstate highways increasing 3.5 percent annually, this safety problem is likely to grow. So, I am pleased to see this given high priority in the budget request and I am pleased to note the emphasis on new enforcement techniques.

Also, I want to thank you again for your prompt response to the daunting safety challenges on the Capital Beltway where heavy through truck traffic mixes with local commuter traffic in highly congested conditions. On this facility, trucks account for 8 to 10 percent of all traffic accidents, and such accidents are five times more likely than nontruck accidents to result in a fatality. In 1992, 21 people died in Beltway traffic accidents, and 2,083 were injured.

Some 52 recommendations were submitted by the working groups you formed last year to look at Beltway safety. You now have a group working to implement those suggestions. When do you anticipate actually putting some or all of these safety initiatives to work on the Beltway so that the public can see results for this effort?

[The information follows:]

In January 1994, the Capital Beltway Safety Team was created to evaluate and implement the recommended safety improvements. To accomplish this, the core group and seven work teams were formed. These work teams are evaluating each recommendation and determining specific short- and long-term implementation strategies.

The Capital Beltway Safety Team has targeted August 1994 for its first report to the public on the group's accomplishments. The work teams have been meeting since January and report their progress to the core group. Accident studies, along with engineering data analysis, will be used by the work teams to identify which recommendations are most effective for improving safety and operations on the Beltway.

Mr. WOLF. As you consider new enforcement tools for the Beltway initiative and on interstates nationwide, are you considering IVHS technologies such as WIM (weigh-in-motion) systems and electronic license plates which could result in "transparent state boundaries" where a truck can be electronically checked out without having to stop, or in some cases, even slow down?

[The information follows:]

Yes. We are considering use of such technologies in the "National IVHS Commercial Vehicle Network", now called electronic clearance. Its primary purpose is to improve safety and productivity by allowing safe and legal trucks and buses to travel the highways just as cars do, i.e., without stopping at state borders, ports of entry or weigh stations. Vital safety, credential and weight information would be checked electronically. Electronic clearance, which relies on these technologies, will be implemented in phases:

Phase I: In 1997—An information network nationwide will allow states to check interstate carriers safety and selected credentials based on periodic downloads. Recommendations will be made on high-speed weigh-in-motion (WIM) equipment. Also, standards for vehicle to road communication will be established.

Phase II: After 1997—Capability to check both interstate and intrastate carrier information and latest driver and vehicle safety data in real time.

Phase III: Incorporate the latest technology for onboard monitoring of driver, vehicle, and cargo status in real time with appropriate warnings to the driver, carrier and enforcement officials.

Mr. WOLF. Since these technologies would have the effect of saving the trucking industry time and money, would we see more voluntary compliance with keeping rigs in good repair?

[The information follows:]

The Office of Motor Carriers believes that the use of electronic clearance systems will positively affect voluntary compliance with the national minimum safety standard. Vehicle safety systems must be maintained in order for the industry to continue to reap the benefits of decreased down time due to inspections. Additionally, providing roadside inspection officers with the ability to both instantaneously assess a vehicle's safety condition and access its safety history creates ample incentive to a carrier to maintain safe equipment.

TRUCK INSPECTIONS

Mr. WOLF. The nationwide goal of truck safety inspectors, as set out by the Commercial Vehicle Safety Alliance (CVSA) is that every truck be inspected every 90 days. Because of limited resources and large volumes of trucks, however, only 6 to 8 percent of trucks are actually CVSA inspected every 90 days.

Along with emerging technologies, are you also considering more efficient ways to monitor compliance with truck safety, such as a so-called "Premier Carrier" system, along with a "Target Truck" system?

Under such a system, trucking firms with active inspection programs and superior highway safety records would be designated premier carriers. They would still be carefully monitored, but would be able to avoid some of the delays of waiting in line for routine, time-consuming roadside inspections.

The "premier carrier" designation might also have some benefits on the insurance side. On the other hand, this would free up the time of the inspectors to focus on the so-called "target trucks" which would be instructed to fix any deficiencies identified in an inspection within 24 to 48 hours. If they didn't do so, the truck would be placed on a hot list and tracked down via ID information distributed along likely travel corridors.

[The information follows:]

We are continuing to develop and evaluate ways to monitor motor carriers' safety performance and to target unsafe carriers. Our goal is to combine the Intelligent Vehicle Highway System, which is being developed, with improved effectiveness of our selective compliance and enforcement program, to produce greater efficiencies for the industry. As mentioned, one initiative is the premier carrier pilot which would recognize motor carriers whose safety and compliance performance is significantly above average.

AUTOMATED RAMP WARNING SIGNALS

Mr. WOLF. I recently participated in the inauguration of the pilot program to test the efficiency of this technology on three ramps on the Capital Beltway. In fact, while we were on location at the Springfield exit, one of the busiest intersections on the eastern seaboard, the technology was activated by a truck that was taking the ramp too fast.

Has the technology now been installed on all three of the pilot ramps?

[The information follows:]

All three truck warning systems have been installed and are operating.

Mr. WOLF. Is there any preliminary data available?

[The information follows:]

Data is being collected. Operational tests and a check of the calibrations are planned for April. An interim report will be made then.

IVHS FUNDING

Mr. WOLF. Your budget request calls for a substantial increase in IVHS funding. While I support the development of IVHS technologies, I do wonder if we are "growing" this program so rapidly that we are not maintaining adequate controls. For example, R&D has gone from $2 million to $38 million in just four years. Also, there are now 42 operational tests, including FTA projects, and that seems like a lot to manage, especially with staff reductions.

One very large area is Advanced Technical Applications, or defense conversion. There is $30 million in the DOT budget, another $585 million in the defense budget, and also some funding in the DOC budget for defense conversion.

Does DOT have any leverage over any of the funding in the defense bill to make sure that it is applied to transportation technologies?

[The information follows:]

DOT does not have leverage per se although we are a partner in the TRP program and participate in the development of the program and in the evaluation panels. The TRP proposal standards for the 1993 proposals required that: "Proposals must show explicit and convincing evidence that this development will ultimately lead to a product or process that has a significant defense market."

Thus a proposal not meeting this standard might not be submitted, or if submitted would not be selected. There were proposals in this latter category that may otherwise have been good IVHS related proposals but were not selected. Also a proposal may meet the above standard but not be given the priority by DoD that DOT would give it and therefore not be selected. In other cases a final TRP product may be very worthwhile for non-IVHS applications but need further work and funding to make it applicable for IVHS. Finally, the defense conversion related products when deemed ready for IVHS may need to be integrated into an IVHS operational test and demonstrated, tested, and evaluated as part of that test. The availability of additional budget can therefore be used to advance both defense conversion and IVHS goals.

DEPLOYMENT PLANNING

Mr. WOLF. Your budget also calls for doubling funding for deployment planning, from $7 to $14 million, to provide for feasibility "seed" studies for communities. When you add these projects to the operational tests and corridor activities, how do ensure that all of this will be compatible with the development of the nationwide systems architecture which is proceeding on a parallel track?

[The information follows:]

There is risk associated with initiating operational test and deployment planning projects while the architecture development is proceeding. In both cases, we believe the benefits of what we are learning and accomplishing far outweigh the risk. As long as the scale of operational test projects is limited to that necessary to accomplish the objectives of the tests, we will not be making major investments in systems that might be rendered obsolete by the establishment of the national architecture. We also believe that we can create cognizance of the national architecture effort and stimulate deployment of systems that are largely architecture independent (e.g., freeway surveillance and control systems) through the deployment planning program.

IVHS SYSTEM ARCHITECTURE

Mr. WOLF. I believe that you have selected four teams to compete for the development of the nationwide IVHS system architecture. What is the status of this program, and when do you plan to further narrow the number of teams in competition?

[The information follows:]

We are currently going through what is termed an interim program review, where we go through a detailed review of their technical reports and architecture structure. At the end of phase I, in December 1994, we hope to be able to narrow the number of teams in competition and award contracts for phase II in January 1995.

TURNER FAIRBANK BUILDING RENOVATION

Mr. WOLF. I note in your budget justifications that you are requesting $3 million in fiscal year 1995 for renovation of the Turner Fairbank Building, an increase of $1.7 million over fiscal year 1994 funding levels.

Can you give a brief update on the status of this renovation, and you may wish to provide greater detail for the record.

[The information follows:]

Due to budget restrictions the renovation of the Fairbank Building was divided into three stages. A contract for stages 1 and 2 was awarded on March 2, 1994. This construction includes replacing the HVAC equipment, renovation of the rest rooms and elevator to comply with the Americans with Disabilities Act, correction of code violations, and the renovation of six laboratories. The preparation of construction plans for stage 3 is underway.

Mr. WOLF. Also, briefly, please relate some of the highlights of the research being conducted there. Also, can you give the Committee some sense of how this facility fits into FHWA's future research plans, particularly in such areas as IVHS?

[The information follows:]

The nature of the research actually being conducted in the Fairbank Building relates to asphalts, pavements, concretes, aggregates, aerodynamic effects to structures, corrosion, and coating materials. In addition, the building houses researchers and contract program managers for the Pavements, and Advanced Research programs, the Long-Term Pavement Performance Program and the National Highway Institute as well as computer facilities. Some of the highlights of work being conducted in the Fairbank Building laboratories are investigations of materials properties that resist asphalt pavement rutting, concrete performance and distress, disbonding of epoxy coatings, tests of stone matrix asphalt, asphalt properties, performance properties of asphalt binders, chemically modified binders, asphalt aggregate mixtures, thermal expansion coefficients of portland cement concrete pavements, use of recycled portland cement concrete as aggregate in portland cement concrete pavements, technology to address removal and encapsulation of lead based paints, and evaluation of low Volatile-Organic-Compound (VOC) coating systems.

Future plans for the Fairbank Building include upgrading the fifty year old facility to comply with access requirements of the Americans with Disabilities Act, installing modern fire safety protection, and compliance with the requirements for improved energy efficiency. The renovated laboratories will expand the capabilities of the laboratories with more rapid testing, measurement of additional materials properties, enhanced ability for environmental controls for testing materials performance, comparisons of more types of laboratory accelerated pavement performance testers, particularly the comparisons of various types of European pavement testing devices.

The effect of the Fairbank Building renovation on other program activity at the Turner Fairbank Highway Research facility, such as the IVHS program, is that it will permit some relocation of staff. Currently, the IVHS traffic management laboratory is to be located at a nearby northern Virginia site, because of lack of space. After the planned relocation of the National Highway Institute from the Fairbank building to another site, space will be available in the newly renovated building to house additional program activity such as the training and demonstration of IVHS technologies.

Mr. WOLF. Thank you very much, and again thanks for quickly responding.

Mr. SLATER. Thank you. And Mr. Chairman, if I might also respond to Mr. Wolf, we will follow your advice as far as reviewing the IG reports of the activities of FHWA and, also, we will pay close attention to this bids rigging issue that you raised as well.

Mr. WOLF. Thank you.

Thank you, Mr. Chairman.

Mr. CARR. Thank you, Mr. Wolf.

CENTRAL ARTERY PROJECT COSTS

While we are on the central artery project, I should note that over the last weekend, actually Friday and Saturday, the Committee took a trip to Providence, Rhode Island, to view some rail matters, and then we went on to Boston on Saturday morning, had an excellent briefing on the artery project. I only wish the folks in Boston would have come down here last year to tell us a little more about what they were doing. But they gave us an excellent briefing and an overview of the project.

They also talked at great length about their proposal to downsize and I think make more efficient the Charles River Bridge situation, which I think is a good example of how you can incorporate a lot of input into getting a better result.

I guess the feeling I came away with from Boston after that briefing, and we did take a little tour around the facility, was that it seems to me that there are certain transportation projects in America which are of a size and a scope and a complexity that perhaps they ought to be managed by a different procedure.

Now, I can't tell you that I know exactly how to decide what is normal and what is sort of extraordinary, but it seems that in the central artery, a lot of the cost growth came from exactly what the gentleman says about the AAS, new requirements kept getting added, not a good job of baselining right up front, not a good job of mission definition up front, not a real thorough job of EIS up front, so that as you do enough of all of those things to get the project started, and it is a project that spans 10, 20 years, all these requirements get added.

Somebody comes up with a new wrinkle, somebody comes up with a new environmental impact on the Charles River crossing. Someone apparently had an enormous amount of attention to esthetics, and I am all for esthetics. But at some point, it seems to me, on huge, mega projects, particularly ones that require some rather intricate engineering—this one was a dredge and a trench on the bottom of a harbor, and tubes floated in from Maryland and sunk—this seems to me is a project that is beyond the normal scope of what highway departments, and maybe even FHWA, has experienced.

And we had the same in the AAS. The FAA can handle procurement at a certain level, but then you get a mega project and suddenly the complexities will overwhelm them. I don't have an opinion about whether the Central Artery project is a good or a bad idea, it is probably a good idea, but it seems to me, in fairness to all the taxpayers in Massachusetts and all the taxpayers of this country and to the Congress of the United States, we might have approached the whole problem differently if we had known then what the ultimate cost would be and we could make some priority decisions.

CONTAINING COSTS OF MEGA-PROJECTS

Mr. CARR. I think somewhere along the way, maybe in the reauthorization of the surface transportation bill, somebody could give some attention to how a process might change when a community is spending in one project in its life more than some states will have in 10 years total. It seems to me there should be some size level where more people have to get around the table earlier and where maybe the management of a project is not totally local; that somehow or other, there is a sufficient federal involvement in the thing that just cannot—maybe the federal government takes the lead in managing that.

I have no idea what the magic answer might be, but we just get these AAS, Central Artery-type situations which plague us and really reduce our ability to make good decisions. But, anyway, they seem as though they are solving the problems, I guess.

Mr. SLATER. Mr. Chairman, if we may, we think that your points are well taken. Not to be defensive, what we would like to do is maybe share a little about how we have responded to try to provide additional oversight for this project, much different from the way we have responded in the past.

Mr. CARR. I think they told us that up there and they made some good suggestions about or they told us about what they had done in cost containment, and I think we want to applaud those efforts. I am not unduly critical of them. I don't think there is anyone to blame, which is it is just that some of these projects continue to grow with new requirements and new ideas and somebody has to—you don't want to shut off maybe doing something better either.

That is not the point, but my guess is, if you studied projects like this, like AAS, that the ideas that in the course of the development of a project over time, that the ideas that limit its cost as opposed to the ideas that expand its cost are not in a one-to-one ratio, clearly, or it would not happen.

Mr. SLATER. That is true.

Mr. CARR. And what we should do is maybe have a zero-sum game here that gives the appropriate incentive to cutting cost as well as extending cost, and maybe that is the procedure we need to—you can add a new requirement, but give one up or figure out how to do something less expensive as your price for getting that new requirement. Do not always externalize your costs into the U.S. Treasury and somebody else's pocket.

If we do not impose some kind of discipline, then it seems to me we are going to have these kinds of problems for a long time.

CLEAN AIR CONFORMITY REGULATIONS

Let me ask a question about the conformity regulation. This is something that bothers a number of us in transportation. I would like to believe that the Department of Transportation is effectively and efficiently managing its affairs and doing so in a way that helps the overall community, whether it is environment or anything else, but that the Department is managing its affairs.

Mr. SLATER. Right.

Mr. CARR. Everybody is for air quality, let's say that, we have to get that in the record, true. But it seems to me, in the conformity regulations, you are in charge of the federal highways until EPA decides they want to be in charge of federal highways and then they run the show.

Now, it seems to me that you ought to be running the show in federal highways and you should be required to do things that make sense from a clean air point of view. And I know the states are going to have a hardtime—including my own State of Michigan. I am grateful for the Administrator joining me in Grand Rapids, Muskegon, Benton Harbor, and Saint Joe, Michigan along the west side of the state not long ago. These communities are threatened by air quality concerns that are not of their own making.

I mean, some of them are, I am sure, but an enormous amount of their airborne pollutants comes from heavy manufacturing in the Gary, Indiana area, Chicago, even Milwaukee, Racine, and Kenosha, Wisconsin. And those are all fine communities, I am not saying negative things about them, but it is a question that air has a tendency to move. Sometimes it does not, but most often it is moving. So under the EPA's ruling here, it would seem to me that Michigan has to pay the price for the western Lake Michigan, shore, southern and western Lake Michigan shore's inability to control its emissions.

And, of course, they have no incentive because if you go—except in parts of Chicago there—if you go west from the western lake shore of Lake Michigan, the air that moves toward them is relatively clean. I mean, we do not have a nonattainment area in Janesville, Wisconsin or Beloit, but that air moves toward Racine, picks up, moves toward Kenosha then sort of drifts across the lake and, wham, it is in Muskegon, and the regulations do not seem to give any flexibility to this.

Are you seeking some—well, help me out here. What can we do about this? It seems to me that—and I don't want to penalize anybody—but it seems to me that you might be able to figure how much of Muskegon's problem is stuff that Milwaukee threw across the pond, at which point you go to the State of Wisconsin and you say, look, you have the problem here. Just because you are on the western edge of a large body of water, that is no excuse for you to do nothing only to pass it downstream, so to speak, to Muskegon.

Is there a way you can help the State of Michigan and not get penalized?

COOPERATION BETWEEN DOT AND EPA

Mr. SLATER. Let me just offer a couple of comments, and then I know Ms. Garvey, who was involved in the conformity regs formulation, working closely with EPA, would like to respond.

We are very concerned about when our ability to make decisions is impacted by the clean air regs and also by EPA in particular. It is our belief that the best way to deal with that very delicate situation is for there to be some coming together, and that is what is occurring with the Secretary of Transportation, Secretary Pena, and the Administrator of EPA, Administrator Browner.

The conformity regs represent our first stab at trying to balance those interests, and it was a very difficult process and we are not totally satisfied with the outcome for EPA. But we do think that it is a good first step, and as we move along, we hope to find enough flexibility within the regs to address the kinds of concerns you have just noted. If not, then we may have to revisit them and deal with it.

With that said, let me ask Ms. Garvey if she has any more specific responses to your comments.

Ms. GARVEY. Mr. Chairman, let me offer just a couple of additional comments. First of all, I think Administrator Slater is absolutely right. From my perspective, it is the most difficult issue I have ever worked on in about 15 years of public office. Very complex. I don't think we came up with necessarily the best answer and I think, as you said, EPA shares that view as well.

On the issue that you have raised about air quality that is affected from other areas, that is extremely difficult. We are spending a good deal of our research money in looking at that issue, multi-state—there are a number of multi-state studies and commissions that are under way and I believe there is one in Michigan under way right now to look at how we deal with that issue.

One of the most important principles that we need to continue with EPA is to look upon this almost as an iterative process; we have to continue to look at it, and come up with some modifications and changes. I think there are going to be changes to some of the guidance we have issued in the next year or so. EPA continues to say that they do not want to see the transportation programs brought to a halt, and that is certainly our goal as well.

In April, AASHTO is holding its board of directors meetings and this is again an issue that is of paramount importance to them, and I believe they have some of my colleagues from EPA attending that conference to work on some of these issues.

But I think it is a combination of trying to implement the conformity rule as its stands but also understanding that we are going to need to make some changes. It is also, I think, an emphasis that needs to occur on research so that we really understand a number of these issues. I think one of the most complex pieces of it is that a number of these concerns, like NOx, are things we do not fully understand yet. We need to do more research and more study to understand the real implications of it.

So we are continuing to work on it. It is not an easy issue, the toughest one I have had to deal with.

NONATTAINMENT AREAS AROUND THE COUNTRY

Mr. CARR. How many areas in the country are like the problem we face in Michigan, where the density or the industrial activity, the point sources, the mobile sources are sort of slammed up against the eastern boundary of a State and the neighboring state to the east, then, has a problem?

Ms. GARVEY. I cannot give you the exact number. I can tell you I am certainly familiar with some in the northeast. I was in Connecticut recently, and that issue was raised about some pollution problems that were not of their making. Vermont is another area, although that turns out not to be an issue, but I know that was for them, and one they were looking at very carefully. Tony, I don't know if you have any of the other numbers.

Mr. KANE. Virtually the whole eastern seaboard has a lot of those problems; Pennsylvania, Connecticut, New Jersey, New York, they all have an industrial area that in one way or another impacts another area, and it creates nonattainment areas. And the solution comes from outside the geographic area and leads to the creation of these multi-state compacts.

The problem is, if you do not get players from other areas doing what is necessary, as Jane Garvey mentioned, it means as we administer this over time, working with EPA, we may have to have changes in the guidance. There may have to be different ways to direct this because of the inability of a neighboring state to do what is necessary.

So I think it is an issue that we have to, over these next two years, focus on and perhaps change the guidance and rules that we have out on the nonattainment areas. The whole eastern seaboard gets impacted, really.

NONATTAINMENT AREAS IN MICHIGAN

Mr. CARR. I am interested in all such areas. I just happen to know and be responsive to the one in Michigan. Can you tell me about that situation? Has that been looked at?

Ms. GARVEY. Let me just mention that Chicago and Gary and Milwaukee, as you have suggested, are nonattainment areas, and as they improve their air quality, that will again affect Michigan. I think what we need to do is really focus on those areas, that is we at EPA, need to focus on those areas that are serious nonattainment areas. And as they improve their air quality, again, the ripple effect of how it will affect neighboring States should be positive.

Mr. CARR. Well, I would think, though, that in some sense Michigan should not be penalized, you know, for the fact that Chicago or the western shore of Lake Michigan, is in nonattainment. What can I tell my people back in Michigan? Are they going to get hit by this thing?

Ms. JEFF. Mr. Carr, in my life before joining the Federal Highway Administration——

Mr. CARR. Well, you still have a life. We are grateful for that.

Ms. JEFF. I knew you needed a straight person—I was director of planning for the Michigan Department of Transportation. The

State of Michigan, along with the States of Illinois, Indiana, and Wisconsin are engaged in a Lake Michigan ozone study looking at the question of transport problems with the eastern side of Lake Michigan to the western coast of Michigan. And what they are looking at in the study should be near completion this year.

They will look at the nature of that transport. They hope then, and they have been working with the Environmental Protection Agency as part of that effort, to be able to demonstrate what portion of the air pollution problem can be properly assigned to those nonattainment areas within the State of Michigan and which is the result of transport, and to then take the appropriate actions based on their level of contribution to that air quality problem.

Grand Rapids and Muskegon are in moderate nonattainment at this point. Benton Harbor/Saint Joe is not designated a nonattainment area at the moment. So that we do indeed—I think the Lake Michigan ozone study will make the case for the folks on the west side of Michigan that there will be some relief. They do have to take some responsibility for their own contribution, and appropriate action should be taken.

The message to the folks in Michigan is they are helping to take care of their own problem by conducting the study. The federal government is contributing by providing a significant portion of funding for that study to be undertaken. As Mr. DeLay talked earlier, it is a question of putting good science to use.

Mr. CARR. When is that study going to be done?

Ms. JEFF. Should be done in the summer of this year, if memory serves me. The contact person to chat with at the Michigan Department of Transportation is Louis Lambert.

Mr. CARR. Thank you for that.

I might just finish by saying I am concerned about the EPA regulation because, in the final analysis, it gives the Administrator of EPA the flexibility instead of the Administrator of Federal Highway Administration. Like I said, I would like you to be in charge of the highway program and not EPA to be in charge of the highway program. And anything you can think of that would help me help you in that regard—well, you know my phone number.

Mr. SLATER. Thank you, Mr. Chairman.

Mr. CARR. It seems to me that other agencies, particularly from outside DOT, should not be telling a unit of DOT what to be doing.

DOT IVHS POSITION

I have a couple of questions on IVHS. I am only going to ask a couple because I have quite a few and as has been noted, I am quite interested in this area, because I believe that IVHS, while not a perfect solution, will, if appropriately implemented, go a long way to solving some of these air quality, safety considerations.

Now, we included language in our 1994 report directing the Department to establish a position within the Office of the Secretary to address the multi-modal and cross-modal issues of IVHS. And I realize, of course, that that is a decision by the Secretary. Can you give us your understanding of what the Department has done to comply with that directive?

Mr. SLATER. We are moving forth to fully implement the directive. We recently agreed on the establishment of a joint IVHS office that will be housed in the Federal Highway Administration, but it will clearly involve members from across the Department engaging in the give and take as far as promoting IVHS technology across the modes.

We are in the process of advertising the position for the head of that office and the responses are very, very good so, hopefully, we will have someone selected in the near future.

Mr. CARR. Will that person report to the Assistant Secretary for Transportation Policy or to some other official, do you know?

Mr. SLATER. That person will report to—well, we are going to actually have an overarching advisory committee that will be headed by the Deputy Secretary. So it will clearly be a person who reports to the hierarchy of the Department of Transportation. And I am also involved in that process as well.

IVHS ARCHITECTURE DEVELOPMENT

Mr. CARR. Can you bring us up to date on the IVHS architecture situation, a brief synopsis of the four competing approaches?

Mr. SLATER. Yes. As I recall, Mr. Chairman, in September of last year, we had a meeting of the four groups involved in the architectural effort. We have established four committees. They are working independently but working at the same time to get us to a point where we can make some choices after they complete their work.

The objective is to have an open architecture that can be utilized across the board. We have some quality teams. I know Rockwell is involved, IBM and Loral, Hughes, and Westinghouse. Those are the companies leading the four groups.

We hope to have a decision from them soon so that we can then make choices based on the information they bring to us as to how to proceed to the second phase. And the second phase is where we will actually make the selection. But this first phase is moving along very well.

Mr. CARR. What is the time frame?

Mr. JUDYCKI. The time frame, Mr. Chairman, is for us to go through the initial architecture development by these four teams until the end of this calendar year. We will then have a down-select process and come out with the one or two architectures that will be developed further, and that development of the final architecture will take another year and a half, until the end of 1996, when we will have the final architecture developed.

There is also a consensus and a technical process that is being managed as part of the architecture development process. We are working through IVHS America in out-reaching to states, regional agencies and the private sector on developing consensus in the architecture, and we have onboard a technical review team of individuals who will reflect on the technical aspects of the architecture as it goes along.

Mr. CARR. Are you doing anything to coordinate or at least trade information with other countries that are maybe doing the same thing.

Mr. SLATER. Yes.

Mr. CARR. Is it possible we could get an international agreement on the architecture?

Mr. SLATER. Denny.

Mr. JUDYCKI. As Mr. Carlson mentioned earlier, we think that system architecture is one of the areas that we are out in front globally on, and, yes, the Asians as well as the Europeans are very interested in knowing what we are doing nationally on our system architecture.

We think that the architecture would posture us very well in globally implementing, and our companies very well in globally implementing, IVHS technologies.

Just one example. For instance, the database maps that are used for in-vehicle navigations are now produced basically by two United States firms, Navigation Technologies and ETAC. They will have the capability of, certainly within an architecture, having products that are delivered globally.

But, yes, there is, in answer to your question, a great deal of interest on our part in working with the architecture internationally, especially since we are out in front on that, in our minds.

Mr. SLATER. Mr. Chairman, you do know that this is Denny Judycki, our associate administrator of safety. Denny, is there not a World Congress coming up? And I believe, Mr. Chairman, you have been invited.

Mr. CARR. In November, yes, I remember. Well, I am interested because not only—we have two very long borders with two very friendly nations. There may be an international play there, I am not sure, from the standpoint of the automobile manufacturers, however, the fewer different kinds of things that they have to manufacture and install in cars, the better off they are.

And we are actually beginning to export quite a few automobiles now, so I am sure that our own auto makers would be quite interested that we go down a road that improves the possibility of commonality of IVHS onboard systems in the future.

CHOOSING A IVHS SYSTEM ARCHITECTURE

Mr. WOLF. Would the Chairman yield?

Mr. CARR. Yes.

Mr. WOLF. Just to follow up on the Chairman's question, what is the process? Four down to two and then how do you actually pick—will there be someone—I was not clear in your answer to the chairman. Will it be one that wins or two that wins?

Could you take us to the end when we actually see it come out the end and into the car?

Mr. SLATER. We hope it would be one, but that one could be a combination of the four, some combination of the four. But we want one architecture.

Mr. WOLF. And who will make that choice? You will make the choice or the Secretary or a panel?

Mr. SLATER. Let me call on Mr. Judycki.

Mr. WOLF. Just to follow up on the Chairman's question, you talked about the different groups, how does it come out?

Mr. SLATER. Your point is well taken.

Mr. JUDYCKI. It is our hope that there will be a consensus-driven process on the architecture that makes the most sense from the private sector perspective as well as the public sector perspective.

One of the biggest issues that these four teams are working through is the balance of, quote, intelligence on the vehicle, for instance, versus in the public sector. And those types of issues, through this process, need to be resolved so that when we come to a decision on one architecture, everybody can feel comfortable with that. And that is why we have built in the technical and the consensus process.

Ultimately, though, Congressman, I think that, yes, we will have to select an architecture in 1996 which we will then expose to the general public for comment and reaction and a decision on before we move forward with what we will eventually have as an open architecture within which standards can certainly be developed.

Mr. WOLF. Is it your hope this will be so prominent and so obvious that the others will go along or will there be room for one of the losers to go their own route and try to invent it differently?

Mr. SLATER. Good question.

Mr. JUDYCKI. Yes, it is. It is our belief it is a win-win situation and it will be in everybody's interest, because an architecture that hopefully would be somewhat obvious by the time we get to that point will, first of all, advance our ability to compete economically. From an individual company's perspective, it will lower their risk of being in the marketplace with something that will not be competitive in addressing IVHS types of strategies and technologies.

Mr. WOLF. So you will actually pick one. And I guess the last question is that, there will be a winner; is that right?

Mr. JUDYCKI. There will be a winner, but that will certainly be after there is a lot of discussion, outreach, and before the final decision, before any final decision is made.

Mr. WOLF. Thank you.

Mr. CARR. Thank you, Mr. Wolf.

CRUMB RUBBER MODIFIED ASPHALT

The next subject that I would like to discuss with you is the crumb rubber modified asphalt issue. As you know, the 1994 Appropriations Act contains a provision that prohibits FHWA from imposing the penalty specified in section 1038(d) of ISTEA upon states that do not use the required amount of crumb rubber modified asphalt in their highway programs.

The American Association of State Highway and Transportation Officials conducted a survey last year that determined that 42 states were opposed to the requirements set forth in that section. More recently, AASHTO approved a resolution commending the Congress for delaying the implementation of the section and committing AASHTO to work to provide information so that the Congress can have data to help formulate needed modifications to the section and recommends actually the total repeal of the section.

Last year, we held a hearing before your appointment, and Mr. Carlson was here and testified, and I would like to know if the Department's position on this has in any way changed and in specific what is the Department's position on section 1038(d)?

Mr. SLATER. Our position is, we support the moratorium. It is not changed. We are not penalizing the states. States that choose to do so, though, are being encouraged to proceed with the use of crumb rubber. Some states are doing that.

We have also been very aggressive in trying to educate states as to how to proceed with bringing the use of crumb rubber into their operations, if they choose to do so. But that is basically where we are on the point at this time.

Mr. CARR. In other words, if we can—you would approve of our continuing the language in last year's bill, forward, this year.

Mr. SLATER. Yes.

STUDY OF HEALTH EFFECTS OF CRUMB RUBBER ASPHALT

Mr. CARR. What is the status of the study of health effects of crumb rubber on workers required by last year's conference report?

Mr. SLATER. It will be ready in June, but the——

Ms. GARVEY. There will be 32 states that will be—the study will begin in June with 32 states engaged in the study.

Mr. CARR. The study begins in June or ends in June?

Mr. SLATER. No, there is some question here. We do have to, I think, admit there was a study done early on.

Ms. GARVEY. Right.

Mr. SLATER. And that study did not find any link in the use of crumb rubber and health problems. So that has been done. Now, there are follow-up activities that we were sort of alluding to. But as far as the initial health study, it has been done and there was no link found.

Mr. CARLSON. The study that I think Ms. Garvey was referring to is the one on long-term durability and recyclability, and that is ongoing. Thirty-two states have combined together for a $2.5 million study. As you may recall, the initial legislation said that in areas of health, that the EPA would be the major researcher in that area.

We have been dealing with EPA, I think, effectively since the conference report was put out, to get that study under way with the concurrence of EPA and their contacts in NIOSH. So that if we do the study from Federal highways, we will have buy-in by EPA of the results of the study.

Mr. CARR. Well, I want to clarify something here. We are aware of the study on recyclability of crumb rubber, but what I am referring to is another study addressed on page 113 of the Senate report last year and on page 35 of the conference report.

The Senate actually requested a study to include a detailed examination of the cost differential of using rubber in asphalt as well as economic and technical impacts of alternative highway uses of rubber compared to using rubber in asphalt. To further study the health aspects of crumb rubber modifiers, the committee directs—this is the Senate committee talking now—directs up to $750,000 be available to a joint labor-management group with demonstrated experience in training of workers and has access to the construction target population that is employed in asphalt pavements activities.

That language was essentially accepted by the conference, but the number was lowered to $500,000. It is that study I am inquiring about.

Mr. CARLSON. Number one, no, we have not had an organization that—a joint labor-management group demonstrating the experience in training workers has not come forward to ask for the study.

So in the absence of that, we have gone to EPA and they, in working with NIOSH, are attempting to put together a group that can take that $500,000 study and move forward with the assurance that when we get information from it, we will be able to have buy-in by all the people involved in the crumb rubber issue.

It has not yet been started.

COST BENEFIT ANALYSIS

Mr. CARR. Okay, that is what I guess we needed to know. We would like to monitor that.

Last year, we had some discussion about cost benefit analysis. Actually we had quite a lot of discussion about cost benefit analysis as we tried to develop some economic criteria to make decisions about highway projects. FHWA actually surprised us by being far ahead of the other modes in the Department of Transportation, and being in possession of methodology and the work you did with HPMS and the HERS system at the time was in beta test. Bring us up to date on that.

Mr. CARLSON. Gloria, would you like to speak to that. Gloria Jeff.

Ms. JEFF. The HERS model has come a fairly significant way since last year when we were here. We have completed the phase I testing of the engineering components and found that to be very satisfactory. We are now looking at the basic economic components of that system and checking the logic, and are getting not only other governmental agencies but other professional economists to take a look at it to make sure the logic is complete.

We expect to have it ready and operational for use in our 1994 conditions and performance report we will be providing to Congress in midyear next year. We will have utilized the HERS models and the results of that analysis will be included in that report.

We are initially developing HERS as a national model and would hope that at the completion of its implementation as a national model, with slight modifications within FHWA, we will then be able to turn it over to the states and the states will be able to utilize it for their own cost benefit analysis during 1996.

TESTING OF THE HERS MODEL

Mr. CARR. So it is done with the beta testing? This is essentially software; right?

Ms. JEFF. Essentially the software has been evaluated and completed. We are now looking at the economic assumptions that went into it to make sure the logic and the underlying economic philosophy are solid.

Mr. CARR. I can appreciate continuing looking at it, but do you not think you could get this out sooner?

Ms. JEFF. We will have a primer out later this year.

Mr. CARR. As software development goes, there is always version 1.5 and 2.0 and 2.2, and I mean you can add, but it seems to me that HERS is a potential gem of a tool to be used by MPO's and state highway departments, committees of Congress, AASHTO. So many people in the industry could use this tool. I guess I am thinking why not, if you are past beta test, why not get it out? Put all kinds of conditions or caveats on it, et cetera, but get it out. Because there will also be a bit of a learning curve with the use of it, it would seem to me. Probably small, but why can we not get it out sooner.

Mr. SLATER. Mr. Carlson.

Mr. CARLSON. HERS gets at the cost benefit on a more system, or macro, basis. Our planning regulations will require that this be done for major investments. We will have major investment studies done at an MPO level as part of our transportation management systems. These will possibly use some of the same methodology as HERS, and we intend to continue in the development of these types of studies with the metropolitan planning organizations, so we should be able to say we have it covered—you could use it statewide, but certainly at a national level with HERS—and with the same kinds of techniques that we can use for specific studies in metropolitan areas.

And I think Ms. Stoll wanted to mention that the President has issued an Executive Order that encourages this as well.

Ms. STOLL. A recent Executive Order by the President requires a new approach to cost benefit analysis for all capital investments, and in the Department of Transportation, the first round of receiving the status quo from all of the modes which have large grant programs, investment programs, is the 15th of March. We will be taking a close look at that at that point, and are required to provide to OMB by the end of March our plan for bringing us up to par with the Executive Order.

One of the major new elements of the Executive Order is to take into account life-cycle costs, which were talked about earlier, and also to attempt to quantify even those aspects of benefit which are difficult to quantify. So we are in, I think, for an interesting but important time in trying to evaluate these projects.

HERS DEVELOPMENT

Mr. CARR. Well, I thank you for that information. I want to get back to HERS as a software package. What is holding that up, getting that out?

Mr. SLATER. Mr. Chairman, I think you made a good point. Anyone who is sensitive to the need to invest more in infrastructure has to also be sensitive to communicating to the public that we are going to give them a good return on their dollar. If this approach helps us to do that, maybe what we can do is to identify some states where we can do it on a pilot effort.

But I think your point is well taken and we will just look at that and try to be responsive in putting good information out there that can help people make decisions that they are making at this point in time.

Mr. CARR. But again, there is a basic software package. It has been through the beta test and you are using it internally.

Mr. SLATER. Right, but can we make it available.

Mr. CARR. Can you make a public release? Why don't you contract with a software house, put it on a CD–ROM, charge an appropriate royalty to recover your costs.

Ms. JEFF. I need to clarify, when you indicated beta testing, what we have done with regard to the two components of the HERS model; one looking at the engineering side of the equation and one looking at the economic side. We have completed the engineering side, we have not completed the economic side.

So in that sense, we do not have a complete model ready to go out. We can do a portion of the equation but not a complete one.

Mr. CARR. Okay. When are you going to beta test the economic side of that.

Ms. JEFF. We are looking to test that side this year. We are going to release the primer in June. We are expecting to do a symposium involving an external group of experts shortly thereafter, probably in July, to take a look at the logic so that we will have it in place.

Again, since our report on conditions and performance is due very early in 1995, we would anticipate that we will have the model up and running by the end of this calendar year so that we could have those results to you next year.

Mr. CARR. Is the programming being done internally or is that being contracted with somebody?

Ms. JEFF. A combination of the two. We are receiving assistance from the Volpe Center on this.

Mr. CARR. You might help for the record identify where all that shows up in your budget submission. I am really quite interested if we can accelerate that. I think it is an important tool for cost benefit analysis. I think it needs to go to public release, not be held inside the Department.

[The information follows:]

HERS funding is made available from contract programs funding for policy research under FHWA's general operating expenses. In the FHWA budget estimates for fiscal year 1995, as submitted by the DOT to the Appropriations Committee, the fiscal year 1995 contract programs are outlined on page 61. The description of policy research is on pages 103–105 of that document.

USE OF CD–ROM FOR DATA ACCESS

Mr. CARR. People make criticisms all the time with software. It gets reviewed just like movies. There is no reason why you cannot get a version 1.0 out and so that states can begin using this.

Now all of this is also heavily dependent on making the HPMS database in at least a semi-commercial available mode, and, hopefully, again, on CD–ROM so that this can make use of existing office hardware. Is the HPMS database being offered in a CD–ROM version that people could get and manipulate with HERS?

Ms. JEFF. I am not sure what the medium is that we would use, but we will get back to you. What I would suggest is that it may be appropriate that we do a separate, independent briefing with you on exactly where we are with HERS even within the testing methodology and the medium.

Mr. CARR. Do you put out our highway regulations on CD–ROM?

Mr. CARLSON. Right now, the entire regs? I don't believe we do. We do not, no.

Mr. CARR. I might suggest that you chat with some folks over at the FAA. They are doing some of that and they have experience over there getting things into CD–ROMs so that people can use the information.

Mr. CARLSON. One of our changes is somewhat tough to handle, and instead of CD–ROM, we have put our codes of federal regulations contained in basic law and a lot of the policy directive portfolios on a bulletin board system so that people have access, but not in a CD–ROM package. If they have a modem, they can get it, but it is not a CD–ROM type medium, but they can get at it through electronic means.

Mr. SLATER. Seems as though we are talking about using the information highway to move information, and that I think is good thinking.

Mr. CARR. The problem, though, is that the data obviously for those who just want a snippet of data, they can get it off a modem pretty easily, but even at high baud rates dragging down a gazillion gigabyte file over a telephone line is going to drive you crazy.

That is why I mentioned CD–ROMs are for those things you can put them in the mail on a subscription basis, update them. They are doing law books now, I see the other day. Almost everything has hit CD and I don't know why FHWA can't move appropriately to disseminate information in a way that—under ISTEA and other laws, you got a lot of people involved in trying to make decisions based on the information you supply, not the least of which this committee, which is a user of information that you supply. So it would help us, too.

Well, we have questions on the justifications. I am really not going to go through all of those orally with you today, but we have a nice list that you will want to answer for the record.

HIGHWAY DEMONSTRATION PROJECT RESCISSIONS—OUTLAY SAVINGS

Mr. CARR. Isn't it correct that the outlay effect of the rescissions never submitted is $59.7 million in 1994 and $406.3 million in 1995?

[The information follows:]

The assumed outlay savings reflected in the budget and initially predicated upon rescissions of certain demonstration projects are $58.7 million in fiscal year 1994 and $406.3 million in fiscal year 1995.

Mr. CARR. It is my understanding that the budget resolution reported by the House Budget Committee addresses this issue and makes certain assumptions that, if followed through the process, would alleviate the situation. However, we are a long ways from the final steps of the process, and many things could happen to change the current picture.

If relief for this problem is not forthcoming through the budget resolution, I believe the Department has some proposals, including the supplemental language submitted shortly after the budget was transmitted. Please explain the Administration's language proposal designed to address this situation.

[The information follows:]

One alternative to rescissions for achieving fiscal year 1995 outlay savings involves controlling fiscal year 1994 obligations. The administration transmitted a supplemental appropriations request on FEbruary 8, 1994, containing language that would allow the Secretary to reduce FHWA obligations (excluding obligations associated with Highway Related Safety Grants or Motor Carrier Safety Grants) to the extent necessary to achieve estimated outlay savings of $58.7 million in fiscal year 1994 and $406.3 million in fiscal year 1995. The Secretary would be able to either reduce the amount available for obligation or delay obligations to achieve the necessary savings.

Mr. CARR. If such authority were to be granted, what would be your recommendation to the Secretary for the best actions to take to achieve the necessary outlay savings?

[The information follows:]

We are hopeful that the budget resolution will adequately address the outlay savings issue and make additional actions unnecessary. However, if additional actions were required, we would recommend that the Secretary simply reduce the obligations of all Federal-aid highways programs (both exempt and subject to the obligation limitation) proportionately to achieve the necessary outlay savings.

Of course, other options would be available to address this issue. For example, we could recommend that the Secretary delay obligations for certain programs, beginning with demonstration projects and minimum allocation, that are currently exempt from the obligation limitation. Also, we could recommend that the bonus limitation not be distributed in August, as usually happens.

A variation of this option would be to limit obligations for just demonstration projects in fiscal year 1994 and fiscal 1995 to 50 percent of the amount otherwise estimated ("scored"). In this way nearly all of the required fiscal year 1995 outlay savings could be achieved with a smaller reduction in fiscal year 1994 obligations affecting fewer programs. About $95 million could be saved in the two accounts containing appropriated demos, and about $305 million could be saved in the Federal-aid Highways account, which contains the ISTEA demos.

Mr. CARR. By how much would the Federal aid highway program's obligation limitation have to be lowered in 1995 to achieve all the necessary outlay savings in that year?

[The information follows:]

If the entire fiscal year 1995 outlay savings of $406.3 million were to be achieved by a reduction in the fiscal year 1995 federal-aid highways obligation limitation, then that limitation would have to be reduced by an estimated $2.7 billion.

BUDGET REQUEST TO FULLY FUND ISTEA

Mr. CARR. Since an honest accounting of the administration's budget submission would reduce the highway program by $2.0 to $2.5 billion, or down to $16 billion or less, how fair is it for the administration and the Department to portray the 1995 budget as having fully funded ISTEA?

[The information follows:]

Our fiscal year 1995 budget request proposes to fully fund ISTEA in that obligations for the "core" Federal-aid programs, such as NHS and STP, are estimated at the $18.332 billion level contained in section 1002 of ISTEA. The assumed outlay savings (and associated reduction in obligations) reflected in the budget request might be handled by either: (1) an increase in the "602(b)" allocation resulting from the budget resolution process; (2) the legislative proposal submitted as part of the February 8 supplemental appropriations request; or (3) one of the other options that would preserve both funding for the "core" programs and states' flexibility to select projects.

DEMONSTRATION PROJECT RESCISSIONS

Mr. CARR. Pages 26 and 42 of the budget justification material still depict rescissions of $1,721,270,000 in 1994 and $816,966,000 in 1995 of ISTEA contract authority for demonstration projects. Since the administration did not propose the rescissions and since the justifications were not received until two weeks after submission of the budget—allowing more than sufficient time to make changes—why are the rescissions still reflected?

[The information follows:]

The fiscal year 1995 budget submission contains budget authority rescissions for demonstration projects, even though the administration is not going to transmit an official rescission proposal, because the assumed outlay savings contained in the budget were derived from those rescission estimates.

The administration intends to work with the Congress to achieve the required outlay savings. Rather than portray another outlay savings scenario in the budget, the administration decided to retain demonstration project rescission savings, especially since it has never supported special project funding which offsets funding that states otherwise would have received through regular apportionments.

Mr. CARR. Is it because if they were not included, the justifications would probably show a reduction in the obligation limitation of the Federal aid highway program of $2 billion or more to keep everything in balance?

[The information follows:]

Alternative outlay savings scenarios that could have been presented in the budget include obligation controls on demonstration projects or minimum allocation, as well as elimination of the bonus limitation. The administration did not present a reduction in the regular Federal-aid obligation limitation because it intends to fully fund the ISTEA-authorized limitation of $18.332 billion for the "core" programs in fiscal year 1995.

Mr. CARR. Presumably the Office of Management and Budget approved your justifications, along with the improper portrayal of the rescissions; is that correct?

[The information follows:]

The Office of Management and Budget approved our fiscal year 1995 budget justifications, including the manner in which assumed fiscal year 1995 outlay savings were presented.

CENTRAL ARTERY/THIRD HARBOR TUNNEL PROJECT

Mr. CARR. Mr. Administrator, are you familiar with some of the recent work the Office of Inspector General has done on the Central Artery/Third Tunnel Project, located in Boston? The Inspector General's work raises several issues that I'd like to explore with you in some detail.

[The information follows:]

Yes, I am quite familiar with the recent IG concerns with the cost of the CA/THT project and the performance of FHWA in its oversight role.

We have reviewed the OIG paper on this subject and have had several meetings with them.

Mr. CARR. Is it accurate that total costs for the project have increased by more than 250 percent in less than ten years, from $2.5 billion in 1985 to $7.7 billion currently?

[The information follows:]

The total cost of the CA/THT project has increased by over 200 percent in 10 years. The $2.5 billion estimate, as shown in the 1985 environmental impact statement documents, was estimated in 1982 dollars. The state's latest estimate, $7.7 billion, was estimated in 1992 dollars and is based on substantially different projects and more detailed design plans resulting from substantially different projects and more detailed design plans resulting from substantial changes, extensions, and refinements to the projects shown in the 1985 environmental impact statement.

We have been and remain concerned with containing costs on the CA/THT projects. We will continue to scrutinize changes to the projects which drive many of the cost increases. We must, however, recognize that this is a complex project which has many impacts on the communities traversed and has environmental and social impacts which must be mitigated. Some of the design changes which increase the cost are improvements to the design which were uncovered as the original preliminary design was further developed and have resulted in improvements to the project.

Mr. Carr. Is it also accurate that by the time the Interstate program ends in 1996, that about $5 billion in federal funds will have provided for this single project?

[The information follows:]

The CA/THT project will receive considerably less than the $5 billion total quoted by the Office of Inspector General in interstate construction (IC) apportionments. The OIG did not realize that Massachusetts lapsed or elected to not receive large amounts of IC funds in prior years, and received several IC apportionments in prior years which were not entirely attributable to the CA/THT project. In total we find $3.7 billion of IC funds will be made available to the eligible portions of the CA/THT projects as follows:

	Billions
IC Funds Obligated	$1.9
IC Unobligated Balance	1.3
Estimated 1996 IC Apportionment	0.5
Total Available IC Funds	3.7

Mr. Carr. Is it true that the $5 billion is about $1.5 billion below the currently estimated federal share of the project's cost, assuming the $7.7 billion total?

[The information follows:]

At the present time, we estimate the IC fund shortfall for the CA/THT projects to be about $1.3 billion as follows;

	Billions
IC Unobligated Balance	1.3
Estimated 1996 IC Apportionment	0.5
Total Available IC Funds	1.8
Total remaining IC needs	3.1
IC fund shortfall	1.3

LIMITATION ON CENTRAL ARTERY/THIRD TUNNEL PROJECT COSTS

Mr. Carr. The Inspector General has recommended to me that the federal share of the project cost be capped at $5 billion. Do you know of any compelling reasons why this approach should not be implemented?

[The information follows:]

We share the concern with cost increases on the project, however, we do not support further "capping" of federal funding.

The interstate construction (IC) funds for the project are already capped by set-aside amounts specifically earmarked for Massachusetts in the ISTEA. In addition, the ISTEA provides that the State does not qualify for Interstate discretionary funding. The ISTEA further states that there will be no additional authorizations for Interstate completion; thus the ISTEA cap of IC funds can not be exceeded under current law.

A significant portion of the project will have to be funded with non-IC federal funds or State funds. Imposition of a cap on non-IC federal expenditures on this project does not impact the total amount of federal-aid funds Massachusetts would receive since the current formulas used to distribute these federal-aid funds are not based on specific project needs We support the state's historic right to determine which projects will receive federal funds.

Mr. Carr. If the program is capped at $5 billion, when does the money crunch really begin?

[The information follows:]

Our analysis of the state's schedule indicates that the state will have sufficient IC funds through fiscal year 1996. The interstate construction fund shortfall will be felt in the years after fiscal year 1996.

Mr. CARR. If the program is capped at $5 billion, what fall-back position's does the FHWA and/or the state have to deal with the forecast shortfall?

[The information follows:]

In the long-term we estimate that the shortfall in federal funds for the CA/THT as follows:

	Billions
IC funds	$1.3
Non-IC funds	0.1
Total	$1.4

Our estimate of the non-IC shortfall is based on our assuming the state will obligate $200 million per year through fiscal year 1997 of their statewide non-IC funds for the CA/THT and does *not* include estimates of federal-aid funds beyond the amounts authorized under ISTEA (final year authorizations are for fiscal year 1997)

We do not support an extension of the Interstate construction program or special funding for the CA/THT projects. We have and will continue to work with the state on the financial planning aspects of these projects to assure adequate finances, either non-IC federal funds or state funds, are available to fund completion of the projects while maintaining a balanced federal-aid program in the state.

OVERSIGHT OF CENTRAL ARTERY/THIRD TUNNEL PROJECT

Mr. CARR. The IG's Region II Office has raised questions concerning the adequacy of the FHWA's oversight of the project. The FHWA has only eight people assigned to oversee a $7.7 billion project involving nearly 1,000 consultant staff and 16 design, construction and demolition work packages.

They conclude:

> Consequently, it is likely that FHWA oversight will simply be overwhelmed by the magnitude of the project. Accordingly, other alternatives must be explored to protect the federal interest in the project and to identify the best means for the federal government to control project cost growth.

How do you respond to the serious issue raised concerning the adequacy of FHWA oversight? How can seven or eight people manage a project of this magnitude without abrogating major responsibility to the consultant?

[The information follows:]

FHWA takes strong exception to the OIG comments and feels they represent a misunderstanding of the FHWA-state roles in administering the federal-aid highway program. Each state has the basic responsibility to oversee and manage all federal-aid projects. On the CA/THT, Massachusetts has hired the management consultant to perform much of these functions for them.

FHWA has long recognized the size and complexity of the project and has assigned a special team of 8 people in our Boston division office on a full-time basis to handle day-to-day management and oversight with the state. Other personnel in the Boston office also work on the CA/THT project on an as needed basis.

In addition, national experts and specialists from our headquarters and region offices have provided advice and guidance at critical steps in the development of the project. These included people from our geometric design and environmental sections, bridge and tunnel experts, right-of-way acquisition and relocation personnel and upper management.

As an example of this oversight, we estimated the staff-years expended on the CA/THT in calendar year 1993 as follows:

	Years
Boston, Massachusetts division	12.1
Region office, Albany, NY	3.2
Headquarters, Washington, DC	2.4
Total	17.7

This project has received more FHWA oversight than any other project in the country.

CONSULTANT PERSONNEL ON CENTRAL ARTERY PROJECT

Mr. CARR. Of the 961 consultant personnel working on the project, 452, or 47 percent, are administrative. Is the FHWA satisfied with the ratio of engineers to administrators working on the project?

[The information follows:]

On the CA/THT project, the management consultant has been charged by the state with performing many of the functions that would typically be performed by the state highway agency in other states.

We do not know the definition used by OIG for "engineer" or "administrative", but it seems the personnel who were not engineers were classified as Administrative which is misleading. We prefer to use the following definition of Administrative which is modeled after that in 23 CFR 140.713; "Administrative personnel are those whose duties are largely for management, supervision, and administrative control. Examples include such personnel as directors, department heads, legal, accounting, budgeting, personnel, and procurement units, and related clerical, secretarial, and other support services for those officials and personnel."

The current management consultant contract provides for a variety of functions. Based on this definition, the general categories and on-board staff (as of 12-30-93) per area consist of:

Category	Total staff	Administrative staff
Project Management	10	[1] 10
QA Plant Inspection	7	0
Design/Environment	289	0
Environment	87	0
Services	172	[2] 51
Procurement	37	[3] 37
Construction	326	0
Seconded	16	[4] 16
Operations	62	0
Communications	19	0
Dept heads not otherwise counted		6
Totals	1,025	120

[1] Directors.

[2] Budget, accounting, personnel, etc.

[3] Procurement.

[4] Surpport staff, legal.

Approximately 12 percent of the consultant staff are "administrative", a figure we feel is reasonable.

Mr. CARR. One action being considered by the Commonwealth of Massachusetts to address the funding shortfall is the use of phased funding, rather than the traditional full funding before advertising approach normally used. Has Massachusetts formally asked the FHWA for a waiver of the full funding requirement? Does the FHWA have an opinion on this approach?

[The information follows:]

The state has formally asked FHWA to approve the phased funding concept for several CA/THT projects. FHWA is reviewing the request but has not yet formulated a response to the state.

THIRD HARBOR TUNNEL PROJECT

Mr. CARR. The July 1993 issue of *Boston* magazine included an interesting article on the Third Harbor Tunnel project. The authors raise the question of whether the tunnel is deep enough to allow adequate protection from large tankers. They cite the incident of a tanker that ran aground in Boston Harbor in 42.9 feet of water in

1990. The third harbor tunnel is designed to be 42 to 47 feet below the surface of the water at low tide.

Are FHWA officials confident that the tunnel is deep enough to prevent collisions with supertankers? What oversight or involvement concerning the depth of the tunnel did FHWA personnel have?

[The information follows:]

The third harbor tunnel has a varying amount of earth cover; 7 feet at the edge of the Bulkhead Line and increasing to 14 feet at the center of the 1200-foot wide channel. The earth blanket increase is due to the negative tunnel roadway profile grade. In addition, the circular tunnel is totally encapsulated with a $\frac{5}{16}$-inch steel plate shell. This steel plate is totally encased with a 15-inch think reinforced concrete liner on its inside face and a 21-inch protective mass of concrete on its outside. Based on the state-of-the-art as it exists today, in our technical opinion, the third harbor tunnel is adequately protected from a collision with a super tanker.

FHWA engineers participated in all of the design reviews of the contract documents and approved the final contract plans and specifications for the third harbor tunnel. This included concurrence of the final depth of the tunnel structure below the river bottom.

NATIONAL HIGHWAY SYSTEM

Mr. CARR. Last December, the Department of Transportation unveiled its proposals for the National Highway System. They totaled 158,674 miles, well within the amount allowed by ISTEA. Please provide the procedure the FHWA followed in developing its NHS proposal.

[The information follows:]

As required by section 1006 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the Federal Highway Administration used the illustrative National Highway System (NHS) that was submitted to the House Committee on Public Works and Transportation in February 1991 as the starting point for developing the proposed NHS. Each state was assigned rural and urban mileage targets based on the illustrative NHS and given the option of submitting additional routes, up to 15 percent of its total mileage target, for consideration. Within the mileage target, the states were directed to include the required components specified by section 1006: the Interstate System, the Strategic Highway Network (STRAHNET), major STRAHNET connectors, and the high priority corridors identified in section 1105(c). The states, in cooperation with local officials, then identified other urban and rural principal arterials serving interstate and interregional travel and highways providing access to major ports, airports, public transportation facilities and other intermodal facilities for the proposed NHS. The FHWA reviewed the states' proposals for consistency with the criteria and objectives established in ISTEA; evaluated the requests for additional mileage; and developed a final proposed system that met national, state and regional goals and achieved an equitable allocation of mileage among the states.

Mr. CARR. Please elaborate on the intermodal aspects of the National Highway System and how you envision the NHS will relate to the National Transportation System the Secretary has announced. What is the nature and schedule of this effort?

[The information follows:]

In developing the proposed NHS, the states were asked to identify the major intermodal facilities and appropriate connections to the NHS, in cooperation with local officials. The FHWA determined in its review of the proposed systems submitted by the states that additional work is required to complete the identification of both the major terminals and the connections. Because of the need for careful and comprehensive consideration of this element of the NHS as part of the statewide and metropolitan planning processes, the FHWA will work with the states, metropolitan planning organizations and other local officials, the other Department of Transportation modal administrations, the American Association of State Highway and Transportation Officials, and representatives from the private sector during the next 12 months to finalize the identification of major intermodal facilities and appropriate connections. As to the National Transportation System, the NHS will be a major component of an intermodal transportation system to meet the Nation's future transportation needs. Thus, the work invested in developing the proposed NHS and the follow-on efforts to complete the identification of the major intermodal facilities and appropriate connections will lay the groundwork for developing the NTS.

Mr. CARR. You hope the NHS will be a dynamic entity, changing as conditions dictate. Please explain how you would like to see amendments made to the NHS.

[The information follows:]

FHWA believes the National Highway System must be dynamic in order to meet future economic and demographic changes serve the long-term transportation needs of the nation. Accordingly, we have proposed that the Congress grant the Secretary the authority to modify the NHS at the request of the states provided that total mileage does not exceed 165,000 miles (265,542 kilometers). The states would be required to establish that requested changes have been identified cooperatively with local officials through the metropolitan and state wide transportation planning processes carried out in accordance with 23 U.S.C. 134 and 135. Changes to the NHS would be limited to those that meet the criteria established for the NHS and enhance the national transportation characteristics of the NHS. If granted this authority, the FHWA will establish procedures, through regulations, for implementing system modifications.

PROJECTS NOT ON NATIONAL HIGHWAY SYSTEM

Mr. CARR. Also, indicate what you think the relationship should be between inclusion on the NHS and project funding. As you know, there are state officials who are concerned that projects not on the NHS will have a harder time getting funding. What can you say to allay some of their fears?

[The information follows:]

The relationship between routes being included on the National Highway System and project funding depends on the extent of the system and the level of funding available in each state. Some states—California, Florida, and Indiana—proposed system that were smaller than the mileage targets provided by the Federal Highway Administration because of decisions to direct the NHS funding to the Interstate System and a limited number of additional routes. Additional states, such as Texas, Wisconsin, Georgia, submitted proposed systems that closely parallel arterial highway systems that they have developed to strategically target federal and state funds. Routes not on the NHS, of course, will be eligible for funding under the surface transportation program (STP), although the number of miles eligible for STP funds is significantly grater [953,000 miles (1,534,330 kilometers)] than the NHS [158,674 miles (255,465 kilometers)].

MAINTAINING NATIONAL HIGHWAY SYSTEM

Mr. CARR. Do you think components of the NHS should be maintained to interstate standards? What additional operation and maintenance burdens would such a requirement impose upon the states?

[The information follows:]

Certainly, some routes will be improved to Interstate standards where such facilities are justified and appropriate to meet future transportation needs. But, the National Highway System is not an Interstate program. The type of facility (e.g., 2-lane, 4-lane divided with or without access control, etc) will depend on many factors, including travel demand, environmental considerations, economic development plans, etc. A large number of routes on the proposed NHS are currently 2-lane and will remain 2-lane in the future. Improving all routes to Interstate standards would place a significant operation and maintenance burden, as well as a financial burden, on the states. The FHWA would strongly oppose such a program.

INTELLIGENT VEHICLE—HIGHWAY SYSTEM PLAN

Mr. CARR. Last October, the first draft of the IVHS program plan was prepared. Discuss the status of the IVHS program plan. When do you expect to see the next draft and when is the final version expected?

[The information follows:]

The first draft of the National IVHS Program Plan was completed in October 1993. The plan was distributed for review within the Department of Transportation, and made available by IVHS AMERICA to its membership. A FEDERAL REGISTER notice was also published in December 1993 requesting public comment and input on the plan. Comments and additions from this extensive internal and external review are currently being incorporated, and a second draft will be available in May.

The plan is scheduled for completion in November 1994. However, development of the plan will remain an ongoing process that will allow the program to respond to successes and failures as well as changing policy, technology and market conditions. The plan will also provide the mechanism through which the DOT solicits, and IVHS AMERICA and others provide, annual program advice.

Mr. CARR. Please explain the process used to write the program plan. For example, who is actually writing the plan, where do they work, who has overall responsibility, et cetera?

[The information follows:]

The National IVHS Program Plan is being developed cooperatively by the DOT, with advice from IVHS AMERICA and interested members of the public. The first draft of the plan, completed in October 1993, was developed primarily by DOT staff, with input from individual members of the IVHS AMERICA technical committees. As discussed above, the first draft of the plan has undergone a board review designed to solicit the views and input of those inside and outside the department.

The second draft of the plan incorporating comments, additions, and suggestions from the review process, is being developed cooperatively by staff from DOT and IVHS AMERICA. A joint writing team, co-chaired by senior level staff from DOT and IVHS AMERICA, has been formed to lead this effort. As in the first draft, input in also being provided by members of the IVHS AMERICA technical committees. Within the department, a task force comprised of management officials is providing overall guidance in the development process.

IVHS PHASE I INTERIM PROGRAM

Mr. CARR. The draft program plan indicates that contract teams will provide comprehensive program architectures and associated reports at the phase I interim program review in February 1994.

Briefly, what were the results of those reviews? Are you on schedule to make the down selection this November?

[The information follows:]

The interim program reviews were conducted from March 15 to March 25, 1994. Overall results are to be available by the end of April.

The down selection process will take place over a 3-month period from October through December. The current plan is to have results to support a down-select decision by the middle of December 1994. This complies with the original schedule.

IVHS PHASE II

Mr. CARR. How many contractor teams will remain after the down selection?

[The information follows:]

It is premature to state how many teams will continue into phase II. Our objective is to continue working with the most promising architectures during the phase II portion of the program. The most promising architectures are the ones that have the best chance of being implemented, based upon technical feasibility and acceptance by the stakeholder community.

Mr. CARR. What are the major objectives of Phase II of the architecture development process?

[The information follows:]

Phase II will involve three primary efforts:

- Architecture refinement, based upon the results from phase I,
- Evaluation of the architectures through simulation and other analytical techniques, and
- Examine deployment alternatives and identify and analyze potential barriers to deployment of a national IVHS architecture.

Mr. CARR. When do you hope to conclude phase II?

[The information follows:]

The schedule calls for the phase II effort to last for 19 months assuming contracts are established in January 1995, then the phase II effort will conclude in July 1996. This includes a 3-month period to reach consensus on a decision regarding establishment of the final architecture.

IVHS PRIVATE/PUBLIC ROLES IN ARCHITECTURE DEVELOPMENT

Mr. CARR. How does the contractor-led architecture development process address the issues of private/public roles and potential problems using the federal government's normal procurement practices?

[The information follows:]

Each architecture alternative will be able to accommodate varying degrees of public and private involvement in the provision of IVHS services. An architecture that relies on centralized processing (e.g., at a traffic management center), however, would likely foster a greater public sector role (with the inherent procurement requirements) while one that relies on decentralized processing (e.g., in-vehicle units) would likely foster a greater private sector role. All of the implications of these alternatives (e.g., cost, equity, privacy, etc.) will be analyzed and discussed with the stakeholders as part of the architecture development program.

IVHS SUPPORT FROM OTHER CABINET DEPARTMENTS

Mr. CARR. Comments have been made to the Committee that the IVHS effort could use more support and involvement from the Departments of Energy and Commerce, and from the Environmental Protection Agency. Do you agree with this assessment and what are you doing to encourage better support and more involvement from these agencies?

[The information follows:]

The IVHS program certainly has energy, commerce and environmental ramifications, and we have been working with the Departments of Energy and Commerce and the Environmental Protection Agency on appropriate program activities. For example, Secretary of Transportation Peña and Secretary of Energy O'Leary executed a joint agreement last August to promote the use of the technology expertise of the Energy Department's national laboratories for IVHS research. We now have work underway at Argonne, Brookhaven, Lawrence Livermore, Los Alamos, and Sandia National Laboratories. We have discussed IVHS with Department of Commerce staff involved with the National Information Infrastructure (NII) and continue to explore the communications capability that the NII will provide. A number of private companies are already conceiving IVHS applications within the NII framework. The potential of the NII is also an important consideration in our system architecture work. We have also been working with EPA staff on a number of IVHS environmental initiatives, including a major IVHS environmental policy conference to be held in June 1994. We fully anticipate that our relationships with these and other federal government organizations will broaden and strengthen as the program continues to mature.

IVHS PROGRAM STANDARDS

Mr. CARR. The issues involving standards and protocols for the IVHS program are serious and complicated. Can you tell us where the program stands in this regard, and of the work being done by both FHWA and IVHS America? When do you hope to see at least interim standards issued?

[The information follows:]

The IVHS program significantly expands the range of technical and institutional challenges to the transportation community; and standards and protocols in areas such as communications, database interchange, and mapping information are receiving a great deal of attention. The ISTEA requires the Department to "* * * develop and implement standards and protocols to promote the widespread use and evaluation of IVHS technology * * *." Examples of US DOT and IVHS AMERICA activities include:

- Establishment of a position in the IVHS joint program office to coordinate DOT activities related to IVHS standards development.
- The standards and protocol committee on IVHS America is identifying the need for current and upcoming IVHS standards and coordinating the appropriate activities with the relevant standards setting organizations.
- The National IVHS architecture development program currently underway will result in a consensus national framework in 1996 for continued integrated IVHS systems development. A key output of this effort will be the progressive identification of specific areas and interfaces for which agreement on a standard (or development of a new standard) is needed.
- Participation by IVHS AMERICA members in IVHS standards development activities of domestic and international standards-setting organizations.
- Technical work is being sponsored by the DOT to support standards setting. Two areas currently active are spatial map data transfer and vehicle-roadside communication.

The timeframe for establishment of standards is driven by issues such as marketplace demand and the consensus-building process. Establishment of system interface standards will be driven by the timetable associated with the system architecture development.

IVHS LEGAL ISSUES

Mr. CARR. Legal issues facing IVHS are another critical path. Please elaborate on the situation for the following legal issues: Privacy, intellectual property, product liability, and procurement.

[The information follows:]

The Department of Transportation has initiated an institutional and legal issues program to investigate and address the many important nontechnical issues, including privacy, intellectual property, liability, and procurement, facing both public and private participants in IVHS.

Privacy

Polls indicate that as the ability to retain and transmit information increases the public is becoming more concerned about privacy. To the extent that personally identifiable information is retained in IVHS, individuals will be concerned about its use, accuracy, retention, and possible release to secondary users. The University of Santa Clara is conducting a study of statutory and regulatory laws pertaining to privacy in IVHS and analyzing possible approaches to safeguarding privacy. The University will sponsor a symposium this summer to evaluate possible approaches to privacy and will sponsor a public forum in the fall to elicit public opinion. A privacy task force at IVHS AMERICA is developing principles to guide IVHS participants in protecting privacy.

Intellectual Property

In January of this year the department sponsored a workshop to bring together private sector representatives and federal and state transportation officials to discuss current intellectual property conflicts and identify ways to overcome them. Two actions would appear to be helpful on the part of the department: generating clear guidance on federal intellectual property policy and encouraging operational test partners to include their legal representatives in the initial stages of agreement formation. The department is following up on each of these recommendations.

Liability

Although many legal experts believe liability will not pose a major obstacle to development of IVHS technologies such as advanced travel information services or advanced traffic management systems, many representatives or private sector IVHS firms express continuing fear of liability exposure. To address this concern, the department will sponsor a conference in January, 1995, to bring together legal experts to discuss potential liability issues, possible means to pool risk, and general risk management strategies.

Procurement

Complications of the procurement process pose a major hurdle in implementation of IVHS projects. Participants generally cite the complexity of federal regulations, the multiple and conflicting requirements that must be complied with in projects crossing jurisdictional boundaries, the lack of familiarity of state procurement officials with high-technology applications, and the conflict of federal accounting practices with private sector practices. The department is pursuing three efforts to help resolve such problems:

- Research to identify alternative, streamlined procurement models;
- Training in contracting in IHVS grants and cooperative agreements;
- Use of innovative procurement methods, such as intergovernmental procurement teams or details, in operational tests.

These issues will be addressed in greater depth in the potential non-technical constraints to IVHS Implementation and use report to Congress which is currently in the final stages of review at the department.

IVHS COMMERCIAL VEHICLE OPERATIONS

Mr. CARR. Of the technologies represented in IVHS advanced traveler information systems, advanced traffic management systems, advanced vehicle control systems, commercial vehicle operations, and advanced public transportation systems, which do you think hold the greatest promise for widespread near-term applicability?

[The information follows:]

We believe that the commercial vehicle operations (CVO) component of the IVHS program offers great promise for significant near term applicability and widespread deployment. Services such as the electronic transfer of information about weights and credentials will allow properly-equipped and compliant vehicles to bypass weigh stations and ports of entry at prevailing speeds. Also, electronic checking or driver and vehicle compliance will speed safety inspections. Advanced technologies also allow for automation of mileage and fuel purchase record-keeping. Work is underway to design a national commercial vehicle network that will provide these services to States and motor carriers across the country.

In addition to the promise in the CVO area, advanced traffic management systems are already being planned or deployed in many areas of the country, and these systems are the basis for establishing an IVHS infrastructure. These systems are using currently available technologies to provide significant improvements in traffic flow. Also, providing credible and reliable information through advanced traveler information systems is beginning to accelerate as part of the IVHS program. Some types of information systems can be implemented at relatively low cost, with a high potential for private sector participation as a data provider.

Mr. CARR. How does your 1995 budget submission reflect this belief?

[The information follows:]

Because commercial vehicle operations (CVO) are an especially significant aspect of the IVHS program, a separate category was created in fiscal year 1994 to assure timely achievements for CVO. The special emphasis for this separate category is proposed to continue in fiscal year 1995 at the $10 million level. This category provides dedicated funding for CVO, over and above the CVO elements that are included in the other broad categories of the IVHS program, such as operational tests, priority corridors, and institutional and legal issues. In addition, funding support for the CVO program is being provided by other elements of the FHWA Motor Carrier program. Under the fiscal year 1995 budget, this additional support for CVO would continue at the fiscal year 1994 level or above.

Our budget submission also shows a $15 million increase in funding for the operational test program. These funds will be used to support new projects, selected through an open solicitation process, that will focus on other high priority elements of the IVHS program, such as advanced traveler and traffic management systems, public transportation management systems, and advanced vehicle safety systems. The proposed $15 million increase for priority corridors will also support projects in these areas.

IVHS RESEARCH CENTERS OF EXCELLENCE

Mr. CARR. Last year, the Federal Highway Administration selected three universities to serve as IVHS research centers of excellence. Please indicate the universities selected and the process used by FHWA in their selection. Also indicate the specific work to be performed by each university. What is the level of financial support envisioned for each university and what is the estimated duration of these efforts?

[The information follows:]

As part of our efforts to involve the academic community in the IVHS Program and to search out alternative methods of delivering the IVHS Program, a decision was made to establish three IVHS University Research Centers of Excellence. The purpose of these centers is to assess IVHS technology needs, perform basic and applied research, and where feasible, serve as partners in IVHS operational tests. A solicitation was issued on March 25, 1993 for applications from qualifying nonprofit institutions of higher learning for the purpose of entering into cooperative agreements to establish and operate up to three Centers of Excellence. Applications were received and evaluated and based on this evaluation, three universities were selected to receive IVHS Research Centers of Excellence agreements. These universities are the University of Michigan, Texas A&M University, and Virginia Polytechnic Institute.

These agreements will provide each school up to one million dollars per Center for each of two fiscal years, with the option to extend funding for three additional years depending on the success of the Centers in attaining research goals and objectives. The Centers will be expected to leverage FHWA funds by building partnerships with the private sector, non-FHWA government agencies, and/or other academic institutions. A minimum match of 20% non-Federal funding is required.

Each of these centers has established focus or thrust areas for their research program. The focus areas of the three centers is as follows:

University of Michigan—traffic modeling, human factors, itinerary selection aids for public transit, legal factors in IVHS, evaluating and impact assessment, and active safety technology.

Texas A&M—public transportation services, traffic management services, international border transportation services, institutional and non-technical areas, and technology integration issues.

Virginia Polytechnic Institute—traveller information/traffic management, vehicle control and commercial vehicle operations, public transit systems, and rural transportation systems.

IVHS PROGRAM ASSESSMENT

Mr. CARR. The department's budget for IVHS programs continues to grow dramatically. The request for 1995 totals more than $300 million. Of course, the FHWA provides a certain amount of oversight for the activities funded under the IVHS umbrella.

The Committee wonders, though, if it might not be advisable to get an outside, presumably unbiased assessment of the value of some of the demonstration projects previously funded in the program. Such an assessment could be performed by an organization such as IVHS America, which has technical expertise in many fields and can draw on additional assistance from members.

What do you think of such an approach? Do you think it has merit? How much do you think such an assessment might cost?

[The information follows:]

In the development of the National IVHS Program Plan, we and IVHS AMERICA are emphasizing the need for a continuing program assessment process. That process will include projections of costs and benefits of IVHS user services, drawing largely from the results of operational test projects. Each operational test must have an evaluation plan that we approve that leads to estimates of the costs and benefits appropriate to the service being tested. We are also providing technical support in the development of these plans and the execution of the evaluations.

Future program activities will be shaped by the program assessment. We will be providing funding support for IVHS AMERICA's participation in the program assessment process through our contract with them. We believe that IVHS AMERICA should share in this cost.

OPERATION AND MAINTENANCE COSTS OF IVHS PROJECTS

Mr. CARR. One of the items we discussed during last year's hearing which is still of real concern to the Committee is that of the local communities' ability to pay the operation and maintenance costs of some of the sophisticated new technologies and systems being touted in the IVHS program.

Automated traffic surveillance and control systems are one example. These systems offer some of the highest near-term applicability. Los Angeles already has a system deployed in 3,800 intersections. It costs $18.4 million annually to operate and maintain this system.

Obviously, this is a very large system. But currently, many communities do not adequately maintain their existing signals. The additional costs associated with the more complex and sophisticated systems could be a real problem. How serious an issue is this in your opinion, and what is the FHWA doing to address it?

[The information follows:]

In 1991, FHWA conducted a study of operations and maintenance of traffic control systems. A sample of representative systems were reviewed. Unfortunately, the level of operations and maintenance was found to be less than desirable. The study made a set of recommendations, some of which have been implemented. Examples of actions taken consist of giving this issue more visibility at all levels and development of additional guidelines and manuals to assist states and cities. Further, with the passage of ISTEA, federal funds can now be used for operational expenses of traffic control systems, and several states and cities are using ISTEA funds for this purpose. Additionally, FHWA is providing technical assistance to states in the form of courses through the National Highway Institute, plus on-site advice on these issues.

A follow-up study on these same issues in 1993 showed a marked improvement both in local management of the systems as well as in federal oversight. In addition, federal-aid expenditures for traffic control signals more than doubled from fiscal year 1991 ($220 million) to fiscal year 1993 (over $502 million). However, further improvement in operation and maintenance of these systems is still desirable. Options are being explored for expanded use of the private sector in performing these functions. FHWA will continue to stress the importance of system operation and maintenance through additional awareness efforts, symposia and presentations, as well as through various technical evaluation opportunities.

AUTOMOBILE INDUSTRY COMMITMENT TO IVHS

Mr. CARR. Kan Chen, Professor of Electrical Engineering and Computer Science at the University of Michigan, has identified one of the barriers to IVHS implementation as a lack of commitment by the automobile industry, which in turn affects the commitment of the electronics industry.

How do you assess the commitment of the automobile industry regarding IVHS, and what is the FHWA doing to stimulate and encourage that commitment?

[The information follows:]

FHWA's experience in working with the automobile industry in the IVHS program has been characterized by their commitment to the program—tempered by market realities. Where we have actually cooperated on an IVHS project, such as in the TravTek project in Orlando, the industry (in this case GM) has shown a remarkable commitment to quality and project follow-through. On the other hand, with the auto industry being in a highly competitive world market, their enthusiasm for IVHS systems and technology faces the reality that those IVHS activities supported by auto industry resources must in the reasonable future show a profit return in the marketplace. As a result, there are differing degrees between the auto manufacturers of program interest, involvement and focus areas.

FHWA has worked closely with the automotive and electronic industry to encourage and support their interest in the program. In addition to several past and continuing senior management level contacts and visits, we have provided opportunities in research and operational tests for their participation. A current example is the request for applications for the automated highway system program which specifically establishes a requirement that the automobile industry must be one of the "stakeholder" industries included in the national consortium.

PRIVATE SECTOR INTEREST IN IVHS

Mr. CARR. In 1992, the FHWA published a document titled Public and Private Sector Roles in Intelligent Vehicle Highway Systems (IVHS) Deployment. It is a summary of a workshop attended by various persons interested in IVHS development and deployment.

One of the participants made the following observation: "The need for market research presents a dilemma for government agencies which must show progress in the deployment of IVHS regardless of the commercial market. Government agencies can not tell a Senate or House of Representatives oversight committee that they have not started the design work because they lack a rigorous basis for determining private sector interest."

What is your assessment of the private sector's interest in IVHS?

[The information follows:]

The department believes the private sector is extremely interested in the development and deployment of IVHS. Historically very few transportation programs have generated so much demand for published material or meetings to inquire about program direction and details as the IVHS program. DOT-sponsored events are always well attended by the private sector, and industry-sponsored events frequently have more applicants than can be accommodated. Many excellent proposals including private sector participants are received in each operational test solicitation.

Mr. CARR. How do you assess this interest? Do you have a "rigorous basis" for your determination?

[The information follows:]

Interest in IVHS from the private sector industry should be distinguished from the interest of consumers, companies, and public agencies in purchasing IVHS products and services. Several private firms have conducted assessments of the potential market for IVHS, but these studies are proprietary in nature and not publicly available. At this time, there is no prevailing understanding of how large the ultimate market for IVHS could be.

The Department believes broad analysis of user acceptance and willingness to pay is critical to helping public agencies determine how IVHS can help solve transportation problems and to guiding IVHS program decisions. To date, the department has sponsored studies to investigate how market research has been performed in IVHS and related technologies, such as cellular phones and electronic toll collection, and has done a preliminary review of user acceptance information available from IVHS operational tests.

Currently the department is sponsoring the development of guidelines for evaluation of user acceptance in IVHS operational tests and analysis of how the IVHS market should be segmented and prioritized for further direct user acceptance research. This year, DOT will embark upon a major user acceptance research project to learn more about the market for IVHS in commercial vehicle fleets and among individual travelers. This research will be done in strict conformity with accepted industry research practices to ensure its quality and credibility.

IVHS DESIGN WORK ASSESSMENT

Mr. CARR. How do you assess the status of the FHWA's design work?

[The information follows:]

Progress in design work must be assessed on case-by-case basis for each IVHS project. Generally state and local project sponsors evaluate user acceptance considerations before and during the design phase, although a formal user acceptance survey, per se, has not been required.

LOCAL AGENCIES INVOLVEMENT IN IVHS

Mr. CARR. During the same workshop, many conflicting comments were made about the role the local agencies should have in IVHS deployment. Some individuals believed the metropolitan planning organizations may be the key groups to solve IVHS coordination problems at the local level. Others maintained that the owners of the systems must have the ultimate responsibility. Others cited the difficulties the local agencies are currently having with their routine operation and maintenance functions, and stated that unless these problems are addressed satisfactorily, IVHS implementation could be 30 to 40 years in the future. Still others maintained that IVHS will not be implemented through local levels, regardless of how much sense it makes or how well it works.

What are your views? What should be the role of the local agencies? Do you envision the MPO's playing a major part? Most importantly, how are the local agencies doing with the current O&M problems? If they can't handle the existing systems, what will they do with the advanced technologies incorporated into IVHS?

[The information follows:]

The Department of Transportation's "IVHS Strategic Plan" identified state and local governments as key participants in IVHS. These agencies will have the primary role in the selection, purchase, installation, ownership, operation, and maintenance of the IVHS infrastructure.

While state agencies have taken the lead in planning and testing IVHS technologies, the local agencies, particularly the metropolitan planning organizations (MPO's), are usually a partner in the project. For example, of the 35 early deployment planning grant program projects supported with federal funds in fiscal years 1991, 1992, and 1993, 30 had a local agency, usually the MPO, playing an active role as partner in the project.

Local agencies, including the MPO's, must play an active role in the deployment of IVHS technologies in order to realize success. Because of their nature, the MPO's are particularly suited to playing a major role in the consensus building and coordination aspects that are so important to deployment of IVHS. In many cases, the deployment of IVHS will have regional impacts, which must be addressed by a regionally-oriented agency like the MPO. This means that the MPO will play a major role in feasibility study, planning, coordination, and marketing of IVHS technology applications.

In order to help local agencies see and better define their role in the deployment of IVHS technologies, the FHWA, at the request of the Senate Appropriations Subcommittee on Transportation, will be working with the Urban Consortium of Public Technology, Inc. (PTI). The cooperative agreement with PTI is designed to help local agencies identify their needs and the IVHS applications. The project uses the Urban Consortium, which is a coalition of the nation's largest cities and counties, to provide outreach, technical assistance, and technology transfer to local areas on IVHS deployment.

While we are aware of the problems that many local (and state) agencies have with their operation and maintenance programs, we believe that local agencies can indeed move ahead with the planning and deploying of IVHS technologies. This is especially true as local agencies begin to take greater advantage of the funding flexibility that the ISTEA provides for operations and maintenance and IVHS. As local agencies begin to become educated on and involved with IVHS, through programs like the PTI outreach project and partnerships with state agencies, they will understand the IVHS can support and improve their operations and maintenance capabilities, particularly with infrastructure repair and congestion management. More importantly, these local agencies will understand that they have an important role and become active players in the deployment of IVHS through the outreach efforts.

We also recognize that traditional roles of providing transportation services are changing and that we must strengthen our proven partnerships while exploring other non-traditional methods. For example, options to expand the use of the private sector in deployment of IVHS user services are being explored.

Mr. CARR. One panel moderator, Robert Ervin of the University of Michigan's Transportation Research Institute, concluded as follows:

> The basic issue is twofold: Private models do not provide adequate traffic management, so public control should remain on the traffic management side; on the other hand, the public sector represents a very weak link. If the IVHS community relies too heavily on that weak link for broad deployment, a generation may pass before it is realized.

Can you assure the Committee that Mr. Ervin's analysis is not accurate? Are you placing too much emphasis on the weak public sector link?

[The information follows:]

We recognize that there are some weaknesses in the public sector's ability to provide adequate traffic management. We are still searching for better solutions to this very important issue. However, public agencies are charged through federal mandate with such major responsibilities as infrastructure repair, congestion management, and environmental improvement. Public agencies are trying hard to meet the challenges imposed by federal legislation in these areas. One possible non-traditional approach that are actively seeking is to engage the private sector in partnerships with the public sector to strengthen traffic management capabilities.

The Department of Transportation's IVHS Strategic Plan also identifies state and local governments as key participants in IVHS. These agencies will have the primary role in the selection, purchase, installation, ownership, operation, and maintenance of the IVHS infrastructure. Consequently, a significant amount of effort on the part of FHWA, IVHS AMERICA, and other related interest groups is on providing education, technical assistance, and technology sharing to state and local governments. The outreach project through PTI, cited above is one example of such a major outreach effort to the public sector. This is, in itself, not a complete answer but is an important element in the overall deployment role.

The field offices of the FHWA work extremely closely with state and local agencies to promote and encourage the study, planning, consensus building, and testing that will be necessary to strengthen the public sector's role and responsibilities for IVHS deployment. In this way we believe we can assure that the public sector link of the partnership will not be two weak to deploy IVHS technologies.

UNIFORM IVHS STANDARDS

Mr. CARR. What steps is the FHWA taking to ensure uniformity of standards for IVHS development and deployment? What enforcement mechanisms will the FHWA employ to obtain compliance?

[The information follows:]

The FHWA is concerned about possible proliferation of IVHS systems, products and services that lack compatibility and interoperability. Establishing nationwide integrated system that preserves the national character of our surface transportation network while encouraging health and competition in the marketplace is a stated goal in our Strategic Plan for IVHS in the United States. This issue will also be the subject of key sections of the National IVHS Program Plan and the potential non-technical constraints to IVHS implementation and use report to Congress.

The primary enforcement mechanism available to FHWA to ensure compliance with standards is through establishment of eligibility criteria for the regular federal-aid highway program.

Mr. CARR. Specifically, what is the DOT doing about standards with systems software? What government agency has the prime responsibility in this important area?

[The information follows:]

There is some preliminary work going on in conjunction with the National Institute for Standards and Technology (NIST) and the National Science Foundation looking into requirements and standards for software system safety, which will become more important for larger, more integrated IVHS systems in the future.

No single government agency has prime responsibility for software standards development, although NIST maintains a widely recognized set of federal information processing standards that offer guidance in a variety of software implementation areas.

TRANSPORTATION ANALYSIS AND SIMULATION SYSTEM

Mr. CARR. In 1993, the Federal Highway Administration entered into a contract with the Los Alamos National Laboratory for a transportation analysis and simulation system, known as TRANSIMS. The stated purpose of this research is "to take a completely new look at forecasting methods and to begin the implementation of new methods."

What is wrong or inadequate with the current forecasting methods?

[The information follows:]

Current methods do not adequately respond to requirements of new legislation such as the Clean Air Act Amendments (CAAA) of 1990 or the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Current models were developed thirty years ago to address the question of what size facility is needed to handle demand. Current and future questions are much more complex including:

How do we reduce vehicle emissions?

How do we relive congestion?

How do we encourage less reliance on the single occupant automobile?

Models must also respond to social and demographic changes such as decreasing household size and the increased participation of women in the workforce.

Current models can not adequately respond to either the changing policy questions or social and demographic changes.

Mr. CARR. Presumably these forecasting methods cut across modal lines; is that correct?

[The information follows:]

Yes. TRANSIMS directly considers highway and transit. The prototype has demonstrated that the capability likely exists to expand the approach to include freight and commercial movements.

Mr. CARR. That being the case, why is this research being conducted by the Federal Highway Administration and not by the Research and Special Programs Administration or by the Office of Transportation Planning, Research, and Development within the Office of the Secretary of Transportation?

[The information follows:]

The ISTEA requires the transportation planning process incorporate all modes. The congestion management systems required by the ISTEA must include modes other than the single occupant automobile. The ISTEA also mandates an intermodal management system. These requirements, and the planning regulations to support these requirements, are administered by FHWA and FTA. The TRANSIMS project is being developed in support of these requirements.

TRANSIMS is part of a larger program to improve existing travel forecasting procedures and completely redesign the travel forecasting process. The program has the joint sponsorship of FHWA, FTA, OST, the Environmental Protection Agency and the Department of Energy.

Mr. CARR. Did officials from any other Department of Transportation mode have any input regarding this contract before it was awarded?

[The information follows:]

Yes, a briefing was provided to FHWA, FTA, OST and an outside panel prior to the award of the original contract. The results of the first years work were reviewed by FHWA, FTA and OST and a strong recommendation was made to continue. FHWA, FTA and OST will participate financially. EPA has reviewed the project and contributes funding to the overall program to update models.

LOS ALAMOS NATIONAL LABORATORY DEMONSTRATION OF TRANSIMS

Mr. CARR. How was the Los Alamos National Laboratory selected for this work? Has it performed similar research in the past?

[The information follows:]

LANL approached FHWA with the idea of demonstrating the TRANSIMS concept. The FHWA Administrator at that time, Dr. Thomas Larson, decided that LANL should be given funding for a one year effort. LANL had performed extensive similar work in the are of simulation of complex systems for the Department of Defense. The type of development proposed, a large scale simulation system, as well as the innovative nature of the approach, were critical factors in deciding to pursue the LANL approach.

Mr. CARR. Was the initial contract for this research awarded competitively?

[The information follows:]

The initial contract was awarded to the National Laboratories through an interagency transfer to the Department of Energy. Prior to the award, FHWA had done a general solicitation for new approaches to travel forecasting procedures. The TRANSIMS approach developed by the National Laboratories was superior to any of the approaches developed through the solicitation.

TRANSIMS PROJECT COSTS

Mr. CARR. Was the original contract for the TRANSIMS project the result of an unsolicited proposal?

[The information follows:]

Yes, the TRANSIMS proposal was unsolicited

Mr. CARR. What is the total estimated cost of the TRANSIMS project, by fiscal year?

[The information follows:]

The total estimated cost is $27 million, as follows:

Fiscal year:	*Amount*
1993	$1,000,000
1994	3,000,000
1995	5,000,000
1996	5,000,000
1997	5,000,000
1998	5,000,000
1999	3,000,000

Mr. CARR. Was the cost of the original proposal made by the Los Alamos National Laboratory in excess of $50 million?

[The information follows:]

Yes, the cost of the original proposal was $52 million.

Mr. CARR. What are the changes in scope from the original proposal to the plan you now envision?

[The information follows:]

The original proposal placed a greater emphasis on system development than now envisioned. The current approach will place more emphasis on the behavioral (travel determining) aspects of the model. Experience gained during the first year enabled LANL and FHWA to come up with more accurate long term cost estimates.

OTHER COUNTRIES' MODELING ACTIVITIES

Mr. CARR. Did the FHWA do any extensive canvassing of the status of other countries' modeling activities before awarding the contract to Los Alamos?

[The information follows:]

Yes, FHWA monitors development of travel demand models in European countries through attendance at key planning meetings and participation in international committees. As part of the solicitation to identify new modeling approaches, approaches being researched by other countries were identified. These were not as far reaching as TRANSIMS. The TRANSIMS project is an improvement over all other approaches we have seen.

FHWA now has a contract underway to identify model improvements developed by researchers and planners throughout the U.S. and overseas. FHWA plans to implement the best of these methods.

NEW GENERATION OF MODELING TECHNIQUES

Mr. CARR. What is the status of the strategic plan for the new generation of modeling techniques?

[The information follows:]

The draft management plan has been prepared by FHWA, FTA and OST. This plan includes an overall strategic approach. An outside review panel has approved the overall approach.

Mr. CARR. Why would the FHWA award a major contract for next generation modeling before completion and review of the strategic plan?

[The information follows:]

The need to improve models, and for an entirely new approach to modeling became critical with the enactment of the CAAA and the ISTEA. It was imperative to move ahead with this effort before the complete development of a strategic plan.

Mr. CARR. How do respond to the observation that the Los Alamos proposal is a high-risk effort of an unproved technology that will have the effect of drying up a considerable portion of research and development funding for the next few years that therefore will be unavailable for pursuit of other issues?

[The information follows:]

No technology is currently capable of responding to all of the analytic requirements of the Clean Air Act Amendments and the Intermodal Surface Transportation Efficiency Act. Every review of the TRANSIMS approach has endorsed it and recommended that we proceed. All reviews indicated that the TRANSIMS effort has enormous potential. The first year effort at LANL demonstrated the concept of TRANSIMS. Since the concept has been demonstrated it would now be more appropriately termed a medium risk effort.

It is important to note that TRANSIMS is one component of an overall effort to improve travel forecasting. Sufficient funds have been allocated for short term improvements to existing processes. Immediate improvements will not be sacrificed for TRANSIMS.

Mr. CARR. What assumption is the FHWA making concerning the need for technical assistance and training with the new modeling approach?

[The information follows:]

FHWA understands that technical assistance and training will be needed for the new modeling approach. FHWA and FTA currently provide technical assistance and training in existing procedures and training in new procedures will be an extension of this.

LOS ALAMOS TRAVEL MODEL PROGRAM

Mr. CARR. Is it possible the Los Alamos approach may be so complex that the lab may be setting itself up as the only source capable of providing the technical assistance that will be required?

[The information follows:]

No, as part of the development of TRANSIMS, FHWA and FTA personnel will work closely with the lab to learn the procedure and will then be able to supply technical assistance. TRANSIMS will be placed in the public domain. The labs have an interest in developing state of the art systems, not in providing ongoing maintenance and technical assistance. The labs will maintain support as TRANSIMS is made operational.

Mr. CARR. What independent assessments have been performed on the Los Alamos National Laboratory new modeling approach? What level of technical expertise was represented on these reviews?

[The information follows:]

TRANSIMS has had a series of independent reviews. An outside panel was formed to take a look at the overall concept prior to award of the initial contract. On November 8, 1993, a group consisting of MPO technical directors, representatives of state government, transit operators, academics and the World Bank reviewed the overall concept and the first year's results. On January 14, 1994, members of a review panel formed to oversee the entire modeling effort looked at the TRANSIMS concept and the first year results. All of these endorsed TRANSIMS. A listing of the members of the November 8th review group, and the review panel for the overall modeling effort follows. A copy of a letter, endorsing TRANSIMS, from the chair of the review panel also follows.

Attendees
Travel Model Improvement Program
Briefing on TRANSIMS Models
November 8, 1993

Mr. Ronald W. Eash Planning Engineer Chicago Area Transportation Study	Tel: 312-793-3471 Fax: 312-793-3481
Mr. Keith L. Killough Planning Systems Manager So. California Rapid Transit	Tel: 213-244-6360 Fax: 213-244-6021
Mr. Jeffrey H. May Planning Coordinator Denver Regional Council of Governments	Tel: 303-480-6743 Fax: 303-480-6790
Mr. Michael Morris Director of Transportation North Central Texas Council of Governments	Tel: 817-640-3300 Fax: 817-640-3028
Mr. Alan Padgett Transportation Engineer Virginia Department of Transportation	Tel: 703-934-0531 Fax: 703-934-5625
Mr. Neil Pedersen Office of Planning & Preliminary Engineering Maryland Department of Transportation	Tel: 410-333-1110 Fax: 410-333-1045
Mr. Charles L. Purvis Senior Transportation Planner Metropolitan Transportation Commission	Tel: 510-464-7731 Fax: 510-464-7848
Mr. Carl Quackenbush Deputy Director of Operations Executive Office of Transportation and Construction Central Transportation Planning Staff, Boston	Tel: 617-973-7142 Fax: 617-973-8855
Dr. G. Scott Rutherford Associate Professor University of Washington Civil Engineering Department	Tel: 206-685-2481 Fax: 206-543-1543

Dr. Antti P. Talvitie Transportation and Urban Development Department World Bank Group	Tel: 202-477-1234 Fax: 202-477-1052
Mr. Steve Wilson Forecast Analyst/Planner Metropolitan Council, Twin Cities Area	Tel: 612-291-6359 Fax: 612-291-6550
Dr. Christopher L. Barrett Systems Analysis and Simulation Los Alamos National Laboratory	Tel: 505-665-3405 Fax: 505-665-7464
Mr. Darrell Morgeson Program Manager Systems Analysis and Simulation Los Alamos National Laboratory	Tel: 505-667-6553 Fax: 505-665-5204
Dr. Gordon Shunk (Panel Staff) Program Manager Texas Transportation Institute	Tel: 817-277-5503 Fax: 817-277-5439

Travel Model Improvement Program
Review Panel Members

Chairman: Dr. Martin Wachs
Professor of Urban Planning
Director, Institute for Transportation Studies at UCLA
University of California at Los Angeles
Graduate School of Architecture and Planning
Harvey S. Perloff Hall
Los Angeles, CA 90024-1467

Members: Dr. Hugh Fitzpatrick
Retired Vice President
The Irvine Company
Irvine, CA

Ms. Anne Geraghty
Manager, Transportation, & Strategies
California Air Resources Board
Sacramento, CA

Mr. Bob Harvey
Regional Transit Project
Seattle METRO
Seattle, WA

Mr. Michael Morris
Director of Transportation
North Central Texas Council of Governments
Arlington, TX

Mr. Neil Pedersen, Director
Office of Planning and Preliminary Engineering
Maryland DOT
Baltimore, MD

Mr. John Poorman
Staff Director
Capital District Transportation Committee
Albany, NY 12205

Mr. Michael Replogle
Co-Director of the Transportation Project
Environmental Defense Fund
Washington, DC

Dr. G. Scott Rutherford
Associate Professor of Engineering
University of Washington
Department of Civil Engineering
Seattle, WA

Ms. Mary Lynn Tischer
Policy Office Director
Virginia Department of Transportation
Richmond, VA

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March 2, 1994

Honorable Federico F. Peña
Secretary of Transportation
U.S. Department of Transportation
400 7th Street SW
Washington, DC 20590

Dear Secretary Peña:

I am chairman of the Review Panel for the Travel Model Improvement Program. This program was initiated in 1992 by the Department of Transportation, the Environmental Protection Agency, and the Department of Energy. The program will develop travel forecasting procedures to satisfy requirements of the Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991. Failure to satisfy those acts may result in litigation that delays needed transportation improvements.

The Travel Model Improvement Program will develop models that accurately assess the congestion and air quality effects of highway and transit improvements. The models will be sensitive to policies such as demand management and pricing. Four areas of program activity are pending or underway:

- Training and technical assistance needed now by MPOs and state DOTs;
- Developing fundamentally new and more accurate travel forecasting models;
- Improving current models for use until the new models are ready to use; and
- Identifying and collecting new and better data that describe today's travel.

The Review Panel urges you to fully support and fund all four aspects of the Travel Model Improvement Program. In particular your approval of financial support for work on the "TRANSIMS" models is critical at this time. These models are being developed by the Los Alamos National Laboratory, and we are concerned that adequate and timely funding be provided to complete the TRANSIMS models as soon as possible.

The products of the Travel Model Improvement Program will help state and local agencies make better decisions on allocation of resources and selection of projects. Your support is needed for TRANSIMS and other activities in this program to assure that transportation improvements in metropolitan areas are not delayed for failure to satisfy the requirements of the recent legislation.

Sincerely,

Martin Wachs

Martin Wachs

c: Honorable Hazel R. O'Leary
Honorable Carol M. Browner

Review Panel Members
TRAVEL MODEL IMPROVEMENT PROGRAM

Martin Wachs, Chairman	UCLA
Hugh Fitzpatrick	Urban Land Institute
Anne Geraghty	California Air Resources Board
Bob Harvey	Seattle METRO
Michael Morris	Dallas/Fort Worth MPO
Neil Pedersen	Maryland DOT
John Poorman	Albany MPO
Michael Replogle	Environmental Defense Fund
G. Scott Rutherford	University of Washington
Mary Lynn Tischer	Virginia DOT

LOS ALAMOS TRAVEL MODEL MILESTONES

Mr. CARR. What interim milestones or deliverable products is the Los Alamos National Lab supposed to provide in order to continue receiving funds?

[The information follows:]

The first year effort produced two products; one to disaggregate households from a zonal level to a GIS level, and the second to generate household activities. These were examined by the review panel and it was recommended that FHWA distribute them. Two test applications are planned during the course of TRANSIMS development. Additional milestones for the project will be included in the management plan. Funding of $1 million was provided during the first year, $3 million will be provided during the second year, $5 million during the next four years and $3 million in the last year. FHWA and FTA will closely monitor TRANSIMS and funding can be discontinued at any time if satisfactory results are not achieved.

Mr. CARR. In the demonstration prepared last year, did the Los Alamos lab prove that it has a demand forecasting capability, or instead did they merely factor up census data?

[The information follows:]

The LANL took census data and combined it with survey data and developed a technique to disaggregate zonal data to a GIS system on a household basis. They then developed a capability to attach activity chains to households. The review panel felt that this technique was very innovative and should be distributed to others. The LANL demonstrated an ability to make a unique contribution to demand forecasting during the first year.

The LANL will add needed outside expertise in several areas during the course of the project, including expertise in demand forecasting. The cost of this expertise has been budgeted as part of the overall TRANSIMS cost.

STATUS OF HIGHWAY TRUST FUND

Mr. CARR. Testimony last year both from the General Accounting Office and the Federal Highway Administration indicated that anticipated revenues into the Highway Trust Fund would not be sufficient to cover anticipated program funding levels. This year, the situation is much different. Please relate how the different factors such as the tax bill last year have changed the outlook.

[The information follows:]

When FHWA made its Byrd Amendment calculation in mid-1993, with assumptions for fiscal year 1993 obligation levels and full funding of ISTEA for fiscal years 1994–1997, $10.1 billion in apportionments would have to be withheld over the three-year period fiscal years 1995–1997. Under current conditions, however, FHWA does not anticipate that the Byrd Amendment will be triggered. FHWA estimates that the highway account of the Highway Trust Fund will have a Byrd Amendment cushion of about $3.9 billion at the end of fiscal year 1997. This assumes the fiscal year 1994 obligation levels and full funding of ISTEA for fiscal years 1995–1997.

The major reason for this improvement in the Highway Trust Fund status is a marked increase in the highway account receipts. The Omnibus Reconciliation Act of 1993 extended the current 2.5 cents per gallon motor fuel tax dedicated to deficit reduction through fiscal year 1999 and beginning in fiscal year 1996, 2 cents per gallon goes to the highway account, the balance of 0.5 cents per gallon goes to the mass transit account. This will provide an additional estimated $10.1 billion in tax revenue to the highway account in fiscal years 1995–1999. The highway account will also get an additional $1 billion in tax revenue for fiscal years 1993–1997 above earlier estimates, due to improved economic assumptions contained in the Department of the Treasury's Trust Fund estimates.

Mr. CARR. Is it accurate that, even with the unanticipated expense of $1.665 billion from the trust fund in response to the California earthquake, the fund is still very solvent?

[The information follows:]

Under these revenue projections, the highway account will remain very solvent even under an expenditure increase of $1.665 billion for California earthquake assistance. With the additional earthquake authorization, the Byrd Amendment cushion would be reduced to approximately $2.5 billion at the end of fiscal year 1997.

ROAD PRIVATIZATION

Mr. CARR. During a press meeting last fall, the new Administration is quoted as saying "we have got to get the private sector involved in financing highway improvements that are necessary."

Please elaborate on this statement. Exactly what is planned relating to this issue?

[The information follows:]

We are exploring the possibilities of opening all aspects of developing, financing, owning, constructing, maintaining and operating highways and ancillary facilities to the private sector. We are, of course, limited by Title 23 requirements, and because tolls are not allowed on Interstate roads, it is unlikely any private entity would take on Interstate road reconstruction without a way to recoup their investment. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), section 1012, however, allows Interstate bridges and tunnels to be reconstructed and converted to toll facilities, and allows any non-Interstate facility being constructed or reconstructed to be tolled. Any of these activities are open to private or public toll options under ISTEA.

Contracting out of highway maintenance to the private sector is also possible under federal regulations, but this is an issue for each state to determine for itself.

Mr. CARR. What special consideration do you think needs to be given to safety issues in any privatization of highways?

[The information follows:]

Most state statutes on public-private partnerships require private entities building highway facilities to meet state standards of equivalent types of public roads. Furthermore, the negotiated concession agreements worked out under California AB 680 legislation, showed that the private entities placed high importance on using the Build-Transfer-Operate (BTO) model of concession precisely so they have State tort liability protection standing between them and lawsuits. This information leads us to believe that private entities recognize the safety risks of owning and operating highway facilities, and will be highly unlikely to implement designs that do not meet state or American Association of State Highway and Transportation Officials (AASHTO) standards, because of the increased risk of tort liability by deviating from established standards.

Mr. CARR. Does your 1995 budget include any provisions or funding in support of road privatization?

[The information follows:]

FHWA's 1995 research budget contains a line item of $200,000 to support further research in public-private partnerships.

The DOT and FHWA support innovative financing concepts, including public-private partnerships. Within the Department, extensive discussion is taking place on what innovative financing policies should be pursued at the federal level. We have created a task force at the departmental level for focussing attention in all modes of transportation on how to leverage more funding through creative financing arrangements. Since these discussions are work in progress, results or ultimate policy proposals are not yet available.

The lessons learned from these innovative projects will be invaluable for fine-tuning any change in direction of Federal policies towards public-private partnerships. Therefore, we are considering incentives and cooperative efforts with the states to encourage project applications under the existing section 1012.

To accomplish this, we have issued just this week a memorandum entitled "Innovative Financing—Test and Evaluation Project, TE–045," offering the states an opportunity to submit to FHWA experimental highway projects using innovative financing, including public-private partnerships. These experimental projects may receive waivers of certain federal regulations to help get the projects underway. This process will help us in our evaluation of public-private partnerships.

We are also evaluating for potential support a broad range of legislative options including those in S. 1714, the Baucus bill on state revolving loan funds, and related measures such as funding of state transportation banks; expanded use of bond insurance and lines-of-credit; use of letters of intent; and bond programs centered on interest-only-loans.

PUBLIC/PRIVATE PARTNERSHIPS

Mr. CARR. For the record, insert information on all road privatization efforts and public/private partnerships of which the FHWA is aware, including location and distance, if known.

[The information follows:]

In addition to actions at the federal level, several states have passed legislation to allow public-private partnerships. These states include: Virginia (1988), California (1989), Missouri (1990), Puerto Rico (1990), Arizona (1991), Florida (1991), Texas (1991), Minnesota (1993), and Washington (1993). Information on some of these states and projects follow.

The State of California is pursuing projects that are examples of both public-private and public-public partnerships. One project, on State Route 91 (SR–91) in Orange County, is the first of four franchises negotiated with Caltrans under Assembly Bill 680 (AB 680) to go to construction. SR–91, a ten-mile, BTO project currently under construction, will be a state-of-the-art facility with electronic toll and traffic management (ETTM) technology. It adds lane capacity on state-owned right-of-way between the existing SR–91 lanes by constructing four median lanes that will be separated from the existing lanes by rubber pylons. The private owner-operators have agreed to allow high-occupancy vehicle use of the express lanes at no charge, while operators of vehicles which do not meet HOV requirements may choose to pay a toll will use the excess capacity left by HOVs on the express lanes. Toll rates will vary by time of day to help facilitate traffic flow on the two sets of lanes.

In legislation not associated with AB 680, the California legislature authorized Orange County and several of the cities within the county to set up a public toll authority called the Transportation Corridor Agencies (TCAs). They are proceeding with three projects within the county. One of these facilities, called the San Joaquin Hills corridor, is the first to gain financing. The $1.2 billion financing is a combination of the $1 billion issue of toll road revenue bonds, about $111 million in state funds, $97 million in investment earnings, $39 million in subordinated debt supplied by the private construction contractors, and $31 million in private development impact fees. The fourteen-mile project is currently under construction.

In the State of Virginia, the original Dulles toll road was constructed by the Virginia Department of Transportation in response to development pressures in Fairfax County, Virginia, following the construction of Washington's Dulles International Airport. Because of the area's rapid growth, the Virginia Department of Transportation became interested in extending the state-owned toll road to Leesburg. The idea of building the extension as a private toll road was raised by some individuals at firms interested in pursuing public-private partnerships. The idea seemed attractive to private interests due to the success of the original road and the development potential of Loudon County.

After much debate about the relative merits of a state toll road versus a private toll road, it was decided to let the private company build and operate the Dulles toll road extension. The fourteen-mile toll road extension is being constructed using the build-operate-transfer mechanism. After 40 years, the highway will revert to state ownership.

In the State of Arizona, legislation provides the framework under which the Arizona Department of Transportation can enter into agreements with private entities for the construction of transportation facilities by private entities. The legislation permits up to four projects to be chosen, two under the California model of negotiating a concession between the state Department of Transportation and the private entity, and two projects under the Virginia model, which relies on a state regulatory agency to set tolls given a target rate-of-return on investment. The program proceeded to selection of four projects, but most of those involved—public and private participants—now agree that they did not take sufficient care to "sell" the idea to the public. Due to poor public response, the Governor pulled back three of the four chosen projects, and now only one project is proceeding with project planning at this time. The state is rethinking its approach and is looking at wide range of financing mechanisms, including tolls.

The State of Florida has public toll roads, and legislation to allow private toll roads. One interesting aspect of the toll road program in Florida is the state-operated toll road revolving fund. The fund was created for the purpose of encouraging the development and enhancing the financial feasibility of revenue-producing road projects undertaken by local government entities. While it applies only to public toll roads in Florida, it is an example of how a revolving loan fund might work if applied to public-private partnerships.

The State of Texas also has public toll roads and legislation to allow private toll roads. The Texas Turnpike Authority is a state toll authority that has the responsibility under the Texas public-private partnership legislation to act as state negotiator for potential public-private ventures.

The States of Minnesota and Washington are the only two states that have passed legislation to take advantage of ISTEA provisions. Projects are under discussion in Minnesota with no formal process of solicitation, but Washington has taken a more formal approach, with a solicitation for proposals which are due to the Washington State Department of Transportation in May.

Most states have some form of contracting out of maintenance services. Massachusetts has recently been experimenting with contracting out of road maintenance and are expanding the program because contracting out was found to cost-effective.

NATIONAL SPEED LIMITS

Mr. CARR. The American Association of State Highway and Transportation Officials has approved a resolution “to allow the States to set reasonable speed limits on urban and rural highways following established traffic engineering principles.”

Does the FHWA have a position on this proposal?

[The information follows:]

We are certainly in favor of reasonable speed limits and states and communities have this prerogative now. However, national maximum speed limits are set by legislation.

RADAR DETECTOR BAN

Mr. CARR. In December, Secretary Peña announced final regulations to ban the use of radar detectors in commercial motor vehicles, effective January 19, 1994.

The final regulations issued by the Department state that “there is no established direct linkage between radar detectors and highway accidents.” What positive safety benefits do you anticipate as a result of the radar detector ban in commercial trucks and can you quantify those benefits?

[The information follows:]

By reducing the truck and bus speeds, it is estimated that the radar detector ban will result in 32 fewer fatalities per year. Approximately 1,800 injuries will become less severe. In monetary terms, the total initial year benefit will be approximately $68 million.

Mr. CARR. What was the analytical foundation for the agency’s decision to ban the use of radar detection devices in trucks weighing over 10,000 pounds and buses carrying more than 15 passengers, but not their use in cars or light trucks?

[The information follows:]

The FHWA does not have the authority to ban the use of radar detectors in cars and light trucks. It remains at the discretion of each state to ban radar detectors from these vehicles.

Mr. CARR. Prior to the Department’s action, only Illinois, New York, Virginia and the District of Columbia banned radar detectors in trucks. Presumably, these states have developed enforcement mechanisms that other states can replicate. How does the FHWA plan to enforce the national ban?

[The information follows:]

The FHWA intends to proactively enforce through the states the radar detector ban through education, encouragement and guidance, and practical participation.

We have polled all of the state MCSAP agencies and determined all the states are currently enforcing, or are actively pursuing legislation to enforce the ban. With the exception of Hawaii and South Dakota, every state should be actively enforcing the ban by the end of 1994. Hawaii will address the issue of radar ban enforcement during their next legislative session. It is expected that the radar ban will be adopted during the month of February, 1995. South Dakota has advised that it will adopt the regulatory language on January 1, 1995 and consideration will then be given to enforcement of the radar ban at that time. The FHWA, however, will continue to provide the necessary guidance, encouragement, and educational information to ensure a smooth transition during the initial enforcement stages.

On March 4, 1994 we issued a memorandum to the field offices providing strategies for federal and state enforcement of the radar detector ban. The basis for this menu was the strategies employed by Illinois, New York, Virginia, and the District of Columbia.

To further encourage enforcement participation of the individual MCSAP inspectors, radar detection enforcement is being including in Roadcheck '94.

Mr. CARR. Have any states indicated that they will not vigorously enforce the radar detector ban?

[The information follows:]

All states have indicated their intent to enforce the radar ban by the end of 1994. Hawaii and South Dakota will address the regulation during their next legislative session. Both states expect adoption of the regulation.

RADAR DETECTOR STUDY

Mr. CARR. In its report accompanying the 1994 Transportation Appropriations Act, the Senate Appropriations Committee requested FHWA, in conjunction with NHTSA and other groups, to conduct a study concerning whether commercial vehicles with radar detectors are overrepresented in crashes involving excessive speed. The study is to be completed by July 1, 1994.

Can you tell us how you are conducting the study, what its cost will be, and whether it is on schedule?

[The information follows:]

In his January 31, 1994, letter to the FHWA Administrator, Senator Frank R. Lautenberg, Chairman, Subcommittee on Transportation and Related Agencies, stated that "in view of the issuance of the Final Rule, the directive from the Senate Committee on Appropriations, contained in Senate Report No. 103–150 is not necessary. The implementation of the final rule obviates the need for the requested study." We do not plan to conduct the study.

BELTWAY SAFETY INITIATIVE

Mr. CARR. The Federal Highway Administration recently issued its Beltway Safety Initiative which is focused on improving safety on the I–495 Beltway around Washington, D.C. One of the recommendations made was that commercial truck drivers and shippers should be held mutually responsible, including payment of fines, if the truck driver is convicted of speeding while trying to make an unrealistic delivery schedule. How practical is this recommendation?

[The information follows:]

The Beltway Safety Initiative was facilitated by the Administrator for FHWA, in cooperation with NHTSA. The efforts of federal, state, and local representatives, from both private and public interests, were focused and unified on a common cause. The recommendations report was the product of the combined efforts of over ninety participants in a brainstorming process. The process solicited ideas with potential of improving safety on the Washington area Beltway.

During the implementation phase of this initiative the Capital Beltway safety team will evaluate each recommendation. Accident studies, along with engineering data analyses, will be used to identify which recommendations are most effective for improving safety and operations on the Beltway.

The practicality of the recommendation to hold shippers and carriers mutually responsible if the driver is convicted of speeding while trying to make unrealistic delivery schedules needs to be studied. To the extent that such scheduling demands occur and are accepted by the carrier, highway safety is negatively impacted. The FHWA, in support of the Beltway effort, has proposed a research study, to begin in FY 1995, pending requested funding. The study would look into the scope of shipper induced violations, the economic motivations for carriers to accept shipments that compel violations, and the need for better enforcement regulations to stem unreasonable shipper demands.

Mr. CARR. How would the FHWA evaluate the scheduling demands that commercial shippers place on motor carriers?

[The information follows:]

The FHWA intends to be the focal point for motor carrier industry issues. The FHWA traditionally has not regulated shipper activities, except those involving hazardous material movements. However, anecdotal information from the industry indicates that some carriers and their drivers may be compelled, for economic reasons, to accept shipments which require drivers to exceed the established hours-of-service rule. To the extent that such scheduling demands occur and are accepted by the carrier, highway safety is negatively impacted.

The FHWA has proposed a research study, to begin in fiscal year 1995, pending requested funding. The study would look into the scope of shipper induced violations, the economic motivations for carriers to accept shipments that compel violations, and the need for better enforcement regulations to stem unreasonable shipper demands.

FUNDING FLEXIBILITY UNDER ISTEA

Mr. CARR. The U.S. General Accounting Office has concluded that the use of ISTEA's flexibility provisions has been limited.

Do you agree with this assessment?

[The information follows:]

Such an assessment would require a definition of the term "limited." Since no unanimous agreement on such a definition exists, the subject must be approached judiciously.

The GAO cites statistics that date from the middle of fiscal year 1993, relatively soon after the passage of ISTEA. Since that time, states have obligated higher levels of flexible funds for transit purposes as changes in state requirements have occurred as well as growing familiarity with the procedure at the State and local levels. For example, during fiscal year 1992, states obligated a total of $200.6 million in STP and CMAQ funds for transit projects. In fiscal year 1993, the figure was $431.1 million, an increase of 215 percent. Five months into fiscal year 1994, states had already obligated $273.4 million in STP and CMAQ on transit projects, which represents an even higher rate than fiscal year 1993. Furthermore, some funding programs have been used more flexibly than others. Obligations for the CMAQ program, for example have been substantially for transit projects.

Mr. CARR. In each of fiscal years 1992 and 1993 provide the amount of highway funds used by the states for mass transit or nontraditional projects.

[The information follows:]

In fiscal year 1992, total obligations of flexible funds were $301.6 million. In fiscal year 1993, the amount was $455.1 million. Continued increases are expected.

CONGESTION MITIGATION AND AIR QUALITY FUNDING

Mr. CARR. How much of the highway funding transferred was congestion mitigation and air quality funding and how much was from other programs?

[The information follows:]

$295.8 million in CMAQ funds was obligated for transit projects in fiscal year 1993; this was about 50 percent of total CMAQ obligations. $135.3 million in STP funds were obligated for transit projects in fiscal year 1993, or 3.5 per cent of total STP obligations.

Mr. CARR. Do you think this represents a commitment to intermodal transportation as much as the realization that there was no other way to spend the CMAQ funding?

[The information follows:]

The FHWA believes this represents heightened interest on the part of the states in both transit solutions to environmental conditions as well as the awareness that given the requirements of the Clean Air Act Amendments of 1990, it is increasingly necessary that states utilize CMAQ funds for projects that will reduce emissions from transportation sources including transit and other projects. There are many other eligible activities under the CMAQ program including the development of inspection and maintenance facilities, conversion to alternative fuels (public fleets); bicycle and pedestrian projects, etc. Funding some of these activities requires the formation of new partnerships beyond the traditional highway and transit communities. As the new partners adjust to the process, we expect a greater proportion of CMAQ funds to be used for their projects.

TRANSIT FUNDING FOR HIGHWAY PROJECTS

Mr. CARR. What is the total amount of transit funding that has been transferred to highway projects since the passage of ISTEA?

[The information follows:]

To date, no transit flexible funds have been transferred to highway projects.

Mr. CARR. How many states have either laws, regulations, or other procedures that preclude the flexible use of funds between highways and transit projects?

[The information follows:]

FHWA has not undertaken any comprehensive survey regarding state laws and regulations relating to expenditure flexibility.

Mr. CARR. Does the FHWA have any organized effort to assist the states with understanding the flexibility provisions of ISTEA? In other words, do you think you are doing enough to educate the states on exactly what their options are?

[The information follows:]

Several efforts are underway to assist states in understanding and making full use of the flexible funding provisions of the ISTEA. Several brochures have been published and widely distributed, including: A Guide to the Congestion Mitigation and Air Quality Improvement Program, The Air Quality Provision of ISTEA and The Transportation Provisions of the Clean Air Act Amendments of 1990. DOT and EPA issued and distributed 5,000 copies of a joint report to Congress in August 1993 which included a summary of flexible funding for transportation and air quality purposes. Numerous workshops have been held across the country in conjunction with issuance of the planning regulations. Also, guidance documents were also provided to DOT field offices. FTA also publishes a yearly brochure on the flexible funding provisions of ISTEA.

These efforts are ongoing, and we will continue them as long as it appears that states need assistance in understanding how they may use the funds flexibly.

HIGHWAY FUNDING FOR TRANSIT OR NONTRADITIONAL PROJECTS

Mr. CARR. Information supplied to the Committee by FHWA in response to questions asked during our hearings last year indicated the following uses of highway funding for transit or nontraditional projects:

State	Source	Use	Amount
California	CMAQ	Operating assistance	$2,740,100
Connecticut	CMAQ	Bridge replacement	14,173,600
New Jersey	STP	Historic rail station	4,000,000
Ohio	CMAQ	Bicycle storage lockers	650,000
Virginia	CMAQ	Commuter rail station expansion	4,508,000

Mr. CARR. Do you think people would object if they were asked as they fueled their cars that some of their gas tax money was being used to buy bicycle storage lockers or to renovate historic train stations?

[The information follows:]

Motorists unfamiliar with the intent and provisions of the ISTEA and the Clean Air Act Amendments of 1990 might find the use of federal funds for these purposes surprising. However, anyone familiar with these provisions would recognize that these projects represent the flexibility that Congress provided the surface transportation community in enacting ISTEA. The STP and CMAQ programs in particular have given the states and local governments wider choices in the kind of transportation projects they select. The program is in understanding these types of projects eligible for federal-aid funds demonstrates the need for continuing to educate the public about ISTEA.

PROJECTS UNDER FLEXIBLE FUNDING PROVISIONS

Mr. CARR. What oversight does the FHWA perform regarding the approval of projects using the flexible funding provisions of ISTEA?

[The information follows:]

When a state wishes to utilize some of their flexible funds under the STP or CMAQ programs for transit purposes, FHWA's oversight responsibilities are quite concise. Essentially, upon application from the state, FHWA reviews the status of the state's available funds, and obligates those funds, and then informs both the state and the FTA of the transfer approval. At that point, the funds are under FTA stewardship processes, whereby the specific uses are monitored to assure that they coincide with law and regulation.

In addition to funds that can be used flexibly between highway and transit projects, there is another class of "fexible" funds which are transportation enhancements. FHWA oversight for these type of projects is identical to that of other, more traditional projects.

Mr. CARR. Given examples such as these, do you think the FHWA oversight and approval process is adequate?

[The information follows:]

The joint FHWA-FTA oversight process for flexible funds has continued to function effectively since its establishment in June 1992. States are assured all the flexibility of funding usage provided under ISTEA, but equally, no state has been given permission to proceed with any project that is not eligible under law.

The FHWA oversight for transportation enhancement projects has operated proficiently as part of the standard oversight process. The examples cited above are legitimate projects and were properly permitted to proceed.

TRANSPORTATION PLANNING REGULATIONS

Mr. CARR. What impact will recent changes in federal transportation planning regulations have on the use of ISTEA's flexibility of funds provisions and how will the Department of Transportation ensure that states and localities jointly cooperate in making the decisions required in these regulations?

[The information follows:]

The regulations will have a positive impact on ensuring that ISTEA's funding flexibility provisions are fully considered. The regulations emphasize the need for a metropolitan transportation planning process that considers all models, is carried out by the MPO in cooperation with the state and the transit operator, and results in the development of financially constrained plans and programs. All agencies that operate transportation systems are to be involved in the transportation planning process. Further, the metropolitan planning process must be an open proactive process in which information is not only shared with all interested parties but all interested parties are encouraged to participate in the process. This involvement by the public and other interested parties will help to ensure that all reasonable alternatives are carefully considered.

Where the need for a major highway or transit improvement is identified, there is a requirement for a major investment study (MIS) in which an appropriate range of transportation alternatives is analyzed before federal funds can be used to advance a proposed major improvement. The range of alternatives to be studied would be determined cooperatively by the MPO, state, and transit operator. The MIS requirement should help to ensure that the flexible funding provisions are fully considered for major investments. In transportation management areas (TMAs) that are nonattainment for carbon monoxide and/or ozone, projects that provide a significant increase in capacity for single occupant vehicles (SOV) must result from a congestion management systems. For projects subject to this provision, the regulations require that all reasonable travel demand management and operational management strategies be analyzed. Before the project can proceed, this analysis must demonstrate that such strategies cannot satisfy the need for additional capacity in the corridor. This will ensure that a full range of alternatives is considered before allowing federal funds to be used for an SOV project subject to this provision.

In the statewide transportation planning process, methods to reduce motor vehicle travel, particularly SOV travel, must be specifically considered. In developing CMS strategies in both metropolitan and nonmetropolitan areas, consideration must be given to strategies that reduce SOV travel and improve existing transportation system efficiency. Both of these requirements will help to assure that consideration is given to alternatives to general purpose highway capacity improvements.

In all metropolitan transportation planning areas, FHWA and FTA must jointly find that the transportation improvement programs are based on a metropolitan transportation planning process that meets the regulations including the requirement that it be carried on cooperatively by the MPO, state, and transit operators. Additionally, in transportation management areas (TMAs), FHWA and FTA must jointly certify that the transportation planning process is being conducted in accordance with the regulations. These two requirements will help to ensure that there is a cooperative process involving the MPO, the state, and the transit operator.

BRIDGES OVER NAVIGABLE WATERWAYS

Mr. CARR. The U.S. Coast Guard maintains an appropriation account called "Alteration of Bridges." In the past, it has been used to fund both highway and rail bridges over navigable waterways for which the Coast Guard has certain responsibilities.

The House report accompanying the 1994 Transportation Appropriations Act recommended that the Coast Guard continue to fund rail bridges through that account, but that highway bridges should be funded through the Federal Highway Administration. The 1995 budget follows that proposal.

How was this change coordinated between the FHWA and the Coast Guard?

[The information follows:]

Coordination was carried out between the U.S. DOT Office of the Secretary, the U.S. Coast Guard and the FHWA. Various options were examined for the funding of bridges that are unreasonable obstructions to navigation using FHWA's Highway Bridge Replacement and Rehabilitation Program funds, specifically the funds set aside for the discretionary bridge program. These were considered and discussed among the parties.

Mr. CARR. What changes need to be made in the FHWA operations to accommodate the new procedure? For instance, will bridges that constitute a hazard to navigation be given a higher priority now than they have previously?

[The information follows:]

There is to be no change to FHWA operations by the proposed new procedure. The procedure calls for highway bridges determined unreasonable obstructions to navigation in accordance with the Truman-Hobbs Act to be funded from amounts set aside from the discretionary bridge program. Annual amounts required for the obstructive highway bridges would be determined and those amounts included by fiscal year in authorizing legislation. The total amount set aside by the 1991 ISTEA for all discretionary bridge projects is $60.5 million for fiscal year 1995, 1996 and 1997. The portion of the funds authorized for obstructive bridges would be transferred from the discretionary bridge program to the U.S. Coast Guard along with the responsibility for administering those funds and projects. Because funds and their administration would be transferred from the FHWA's discretionary program, the priority of projects would not be a discretionary bridge program issue.

Mr. CARR. What will be the resolution if the Coast Guard wants to replace or rebuild a bridge because they regard it as a hazard to navigation, but the state involved does not regard the project as a high enough priority to warrant funding?

[The information follows:]

The U.S. Coast Guard has the responsibility and authority to remove unreasonable obstructions to navigation, but negotiations are carried out with bridge owners and accommodations made. A state's involvement in the decision on whether to fund an obstructive bridge would be limited, because the funds are discretionary not apportioned bridge funds.

Mr. CARR. Does the new procedure require any legislative changes, or can it be accomplished administratively? In the House of Representatives, which legislative committee has jurisdiction of the new approach, Merchant Marine and Fisheries or Public Works and Transportation?

[The information follows:]

The new procedure requires legislative change to make highway bridges that are unreasonable obstructions to navigation eligible for discretionary bridge program funds without regard to their eligibility under the Highway Bridge Replacement and Rehabilitation Program. Also, changes are required for the transfer of funds and their administration from the FHWA to the U.S. Coast Guard. The Merchant Marine and Fisheries Committee's jurisdiction does not change. It continues to have jurisdiction over the bridges that are hazards to navigation. However, because a change in the use of the Federal Highway Trust Fund is involved, the Public Works and Transportation Committee also has jurisdiction over the new source of funds.

CRUMB RUBBER MODIFIED ASPHALT

Mr. CARR. Last years' House report directed the FHWA to contract with the Transportation Research Board to study the safety, environmental, and recyclability issues of crumb rubber modified asphalt. What is the status of FHWA's compliance with this directive?

[The information follows:]

We did not use TRB for the study of crumb rubber. We reviewed other research we had undertaken to perform the study and decided the TRB effort was not necessary or would be duplicative.

FHWA has two activities underway to address the issues raised by the House. In the spirit of the suggestion to advance this research, we are in the process of awarding a multi-year project to address long-term performance and recyclability. Award is anticipated June 1994. This $2 million+ effort will develop engineering guidance on mix design, specifications, construction methods, and recycling for crumb rubber modified asphalt. Thirty-three States are participating in this pooled fund study effort. This work should address the technical issues raised by the House.

To address the environmental and worker safety issues, we are developing, with EPA and NIOSH technical assistance, a program for sampling and testing emissions on projects in several States this coming construction season. These efforts should meet the intent of using multi-disciplined participation and provide accelerated results.

CONGESTION PRICING

Mr. CARR. A recent article in the Transportation Research Board's News publication referenced a paper prepared by Kiran Bhatt and presented at a symposium on congestion pricing sponsored by the TRB. Bhatt's paper was titled "Congestion Pricing In Metropolitan Washington Region."

Following are some of the major points raised in Bhatt's paper: Travel for the greater Washington, D.C. area is projected to grow by 52 percent by 2010, whereas highway capacity is projected to increase by only 14 percent; daily commute trips are anticipated to grow from 4.0 million to 5.7 million with three-quarters of the growth occurring in the suburbs; weekday vehicle miles traveled are expected to increase from 97 million to 147 million, again with most of the growth in the suburbs.

Bhatt's recommended solution is a region-wide congestion pricing proposal. He estimates that such a plan could reduce peak period VMT by 10 to 25 percent and improve average round-trip travel times by 10 to 15 minutes. Both estimates are based on an average of 10 miles per commute and a charge of 15 cents per mile. He further estimates that such a plan would cost $80 to $160 million annually to operate and would generate $1 to $1.7 billion in revenues.

How does the Federal Highway Administration assess the positive and negative aspects of such a proposal?

[The information follows:]

We believe that Mr. Bhatt's paper makes the very positive contribution of bringing congestion pricing to the table as a possible solution to congestion problems in Washington, D.C., and other metropolitan areas in the U.S. We also recognize, however, that there are a number of implementation considerations that must be taken into account before congestion pricing can be moved from the conceptual state to the realm of political reality. Mr. Bhatt's paper mentions several of these considerations, including problems of spillover traffic, legal impediments in a multi-jurisdictional area like Washington, D.C., and the need to deal with concerns about impacts on business and low income travelers. We believe that if the potential efficiency advantages of congestion pricing are to be realized, the concept must be introduced gradually as part of a process that includes substantial public participation in the planning, design, and evaluation of potential pricing alternatives. Rather than being *imposed,* congestion pricing must be *proposed* and the public must be convinced of its long-term benefits. This means that the objectives or prospective projects must be clearly stated, alternative pricing strategies must be defined and evaluated, the role of different governmental and private agencies in project development must be determined, and groups or individuals likely to be affected by the project must be sought out and brought into the process of project development. Involvement of local decisionmakers, interest groups, and the general public is critical to project success.

CONGESTION PRICING ACTIVITIES

Mr. CARR. What current activity—both research and operational—is the FHWA conducting on congestion pricing?

[The information follows:]

Over the past two years, the Department of Transportation has undertaken a number of activities designed to generate interest in, and discussion of, issues related to congestion pricing and other market-based solutions to transportation problems. Two FHWA/Federal Transit Adminstration (FTA)-sponsored symposiums in 1991 and 1992 focused on congestion pricing implementation issues. The results of these outreach efforts have been published by FHWA and disseminated widely. The FHWA and FTA have also sponsored a comprehensive examination of congestion pricing by the National Academy of Sciences (NAS). This study effort, being conducted by a multidisciplinary committee under the chairmanship of Professor Martin Wachs of UCLA, included a national symposium on congestion pricing held in

June 1993. The committee's final report will be published as a special NAS report on congestion pricing in the spring of 1994. Efforts to stimulate discussion of congestion pricing issues, and particularly to bring into these discussions state and local political leaders who will have to be in the forefront of any successful implementation effort, are an important part of the DOT's response to the Congressional directive to solicit participation by state and local governments in congestion pricing pilot projects.

Another major aspect of the DOT's promotional efforts has been through the Federal Register process. The FHWA has issued three Federal Register Notices on the Congestion Pricing Pilot Program. The first (May 29, 1992) presented general information about the program and solicited public comment on a number of implementation issues. The second notice (November 24, 1992) discussed the public comments, presented program guidelines and selection criteria, and opened a two-month solicitation period. The third notice (June 16, 1993) summarized the response to the initial solicitation, announced the selection of the first pilot project (San Francisco-Oakland Bay Bridge), and extended the solicitation period through October 14, 1993. An interagency review group has been formed to assist FHWA in evaluating proposals and in carrying out other program implementation activities. This group consists of representatives from several FHWA offices, FTA, the Office of the Secretary of Transportation, Environmental Protection Agency, and the Department of Energy.

In addition to these efforts, FHWA has worked closely with the California Department of Transportation (Caltrans) and the Metropolitan Transportation Commission to develop a cooperative agreement to implement the Bay Bridge congestion pricing project. The FHWA will continue to be closely involved with the project as it proceeds from the development of a pricing strategy through pricing implementation. Approval of the California State legislature will be required before the pricing strategy can be implemented.

The FHWA is also co-sponsoring studies and surveys in order to develop and provide further information and guidelines on market-based mechanisms to states and air-quality nonattainment areas. These include: FHWA's co-sponsorship, with several California transportation and air-quality agencies, of a major examination of the use of market-based mechanisms, including congestion pricing, in meeting air-quality goals; and FHWA's co-sponsorship, with FTA and EPA, of a survey of current thought and practice in the use of market-based mechanisms to be undertaken as part of the National Association of Regional Councils' Clean Air Project. The survey paper will serve as a general guide to pricing. In addition, FHWA, FTA, and Caltrans are jointly funding a project designed to monitor and evaluate the effects of the pricing of privately-funded new express lanes on SR 91 in California. Also, FHWA is having a contractor prepare a congestion pricing project guidebook designed to introduce congestion pricing concepts and implementation issues to state and local governments. The guidebook will be a working document that will be further developed as more experience is gained with the pilot program. We expect to be able to distribute an interim guidebook to state and local governments and other interested parties during the month of April 1994.

CONGESTION PRICING LEGAL IMPEDIMENTS

Mr. CARR. What do you envision as the major legal impediments to implementation of congestion pricing proposals?

[The information follows:]

Because congestion pricing involves setting variable prices for the use of highways, legal authority is needed to impose and vary highway tolls. The multiplicity of jurisdictional boundaries found in most urban areas may lead to a number of legal impediments. Legal responsibility for traffic operations, safety, and toll policy may each come under the jurisdiction of different public agencies. Private agencies may also have responsibilities for determining toll levels or for toll collection. State, local, and federal laws and regulations may all have control over some aspect of the proposed pricing project. Tolling may be allowed under federal law, but state or local authority for levying tolls may be lacking. Or, there may be existing authority for levying tolls, but no authority for varying toll levels according to time of day or level of congestion. Toll enforcement authority may be held by a different organization than the authority to levy the toll. In many locations, the ability to use automated means of toll enforcement is limited by the lack of authority to impose fines on the vehicle owner. Legal restrictions at the federal level that have been cited as limiting the application of congestion pricing include the inability to levy tolls on the Interstate system and federal restrictions on the use of revenues generated by congestion pricing. However, we believe that citizen opposition to congestion pricing is a more important factor in limiting the implementation of congestion pricing projects.

CONGESTION PRICING OUTREACH PROGRAM

Mr. CARR. Resistance from the driving public is often cited as another barrier to successful implementation of congestion pricing plans. Does the FHWA have any outreach or information programs designed to educate the public on the whole spectrum of congestion pricing issues?

[The information follows:]

We believe that public outreach programs must be a central element of any program to implement congestion pricing. For this reason, we are ensuring that the San Francisco-Oakland Bay Bridge project we have selected for participation in the Congestion Pricing Pilot Program is putting considerable emphasis on this important aspect of the implementation process. Our efforts to encourage participation by other cities will continue to emphasize the need for locally-based public outreach and information programs. At the national level, we have undertaken a number of activities designed to generate interest in, and discussion of, issues related to congestion pricing and other market-based solutions to transportation problems. We have sponsored public symposiums to provide a forum for discussion of congestion pricing issues by transportation leaders and public officials from Federal, State, and local governments. The results of these discussions have been published by FHWA and disseminated widely.

STRATEGIC HIGHWAY RESEARCH PROGRAM

Mr. CARR. At the Pacific Rim TransTech Conference held last year, the Administrator touted the products of the Strategic Highway Research Program as being in the vanguard of the coming revolution in transportation technology.

At the same conference, FHWA Executive Director E. Dean Carlson made the following predictions for 10 years from now: A majority of states will be using most of SHRP's products; traffic data will be complete and accurate; automatic vehicle identification will be widespread; hundreds of millions of dollars will be saved by extending pavement life and durability.

However, Thomas Deen, the Executive Director of the Transportation Research Board, and Francis Francois, the Executive Director of AASHTO, both expressed some reservations. Deen cited the private sector as the weak link in seeing more widespread use of SHRP products. Francois noted that the 200,000 state DOT employees need to be convinced of the value of SHRP products.

Does the FHWA agree with the observations of both Deen and Francois?

[The information follows:]

Certainly the remarks made by Mr. Deen and Mr. Francois are valid concerns facing the implementation of the SHRP products. However, the FHWA lead SHRP implementation effort is structured to address these and other concerns through a strong public/private sector partnership. The partnership process is described in "Implementation Plan—Strategic Highway Research Program Products". This process involves a wide cross section of top management and mid-level managers and technical experts from the states, industry and academia. By obtaining the early input from the states and industry and with their cooperation, we still believe that "10 years from now" the SHRP products will show a return on the investment dollar.

Mr. CARR. How many of the products identified in SHRP research are being routinely used by state departments of transportation?

[The information follows:]

At this stage of the implementation process, we would not expect routine use of many of the products. The showcase contracts are just now coming on board where the products will be presented around the country in a formal, organized fashion. It is difficult to expect routine use without having this formal delivery mechanism and a reasonable period for evaluation.

We have made major inroads in the work zone safety equipment with over 30 states routinely using one or more of the eleven devices. In the asphalt area, over 25 more states have received equipment and will be trial running the new specifications in actual construction contracts this year. Additionally, 15 states are evaluating the new "anti-ice" technology for prevention of ice buildup on our roadways. Overall, we probably have approximately 200 evaluations of products ongoing at this time by the states.

Mr. CARR. What is the level of readiness of those products not yet in use?

[The information follows:]

The products range in complexity—from the simple to the very detailed. The asphalt program is ready for trial use. There is great need for the states and industry to understand the many facets of the program and establish a "comfort" level. We anticipate gradual acceptance of the asphalt products with a target of 1998–2000 for potential widespread use.

In the concrete and structures area, we will need 2–3 years of education and field evaluation to determine final applicability of these products. We expect 2 more years of evaluation on our snow and ice products. AASHTO has established a 2 year time frame for their provisional specifications before requiring a final vote for adoption.

It must be remembered that the level of readiness of the SHRP products is not only a function of the research but of the potential user. The user must dedicate the time, effort, and resources to evaluate the product. Additionally, certain factors must be conducive to use—a problem at hand, a need for better performance, dollars to be saved, accidents to be prevented, etc. These are all very local decisions.

Mr. CARR. For the products not ready for use, what criteria has FHWA established for deciding which products merit additional expenditures for implementation, and for setting priorities for funding and scheduling these activities?

[The information follows:]

Our technical working groups—a blend of industry, state, and federal engineers—help us determine that a product requires additional research. Internally within FHWA, we surface these needs through various research and technology committees for prioritization. Generally, SHRP activities are considered priority and have been reflected in our expenditures, especially in the asphalt area. We also have a mechanism to surface additional research through our National Cooperative Highway Research Program (NCHRP) efforts. Currently, a study is underway that is collecting all the followup research that may be required and will prioritize them for consideration.

Mr. CARR. What amount of time and funding will be necessary to get the products deemed feasible for further development ready for routine use by state departments of transportation?

[The information follows:]

We would think that to continue on with the high priority areas of SHRP—asphalt and high performance concrete specifically—we may need additional funding through the year 2000 of possibly $2–4 million for fiscal year 1998 and fiscal year 1999. We would believe the funding provided in ISTEA should be sufficient for the task through fiscal year 1997.

SHRP RESEARCH STUDIES

Mr. CARR. Is additional research needed to complete SHRP products other than those in the long-term pavement program?

[The information follows:]

Yes, additional research is needed for those products that as part of the SHRP research were placed on inservice highways across the United States. These studies include: 1—Analysis of the performance of the preventative pavement maintenance treatments; 2—evaluation of the innovative pavement maintenance materials; 3—evaluation of treated bridge decks, and 4—evaluation of concrete durability and alkali-silica reactivity.

Additionally, a major study will be undertaken for the refinement of the pavement performance prediction models used in the SUPERPAVE asphalt design system.

SHRP IMPLEMENTATION AND LONG-TERM PAVEMENT PERFORMANCE

Mr. CARR. For the $108 million authorized in ISTEA for the SHRP implementation and the long-term pavement performance program, what amounts has FHWA allocated to these two programs and what are the planned allocations for the duration of ISTEA?

[The information follows:]

ISTEA provided $12 million in fiscal year 1992, $16 million in fiscal year 1993 and $20 million in fiscal years 1994, 1995, 1996 and 1997 for a total of $108 million. The allocation is:

STRATEGIC HIGHWAY RESEARCH PROGRAM

[Dollar amounts in millions]

	Fiscal year—					
	1992	1993	1994	1995	1996	1997
Implementation	$8	$10	$12	$14	$14	$14
Long term pavement performance	4	6	8	6	6	6

VALUE ENGINEERING

Mr. CARR. Last year, the Federal Highway Administration issued a report to Congress pursuant to section 1091 of ISTEA entitled "Value Engineering on Federal Aid Projects." The report concludes the following: during the past four years, 1,543 VE studies have resulted in $615 million in savings; only seven states have active VE programs; 18 states have inactive VE programs; 27 states have limited VE programs.

States that have a limited or inactive VE program cite factors such as "low priority or acceptance by top management, resistance to changing the development process to include VE, and a lack of understanding of what VE does," as the major stumbling blocks to greater utilization.

Could those observations be made about the way the Federal Highway Administration regards value engineering?

[The information follows:]

Top management officials at FHWA are fully committed to the value engineering (VE) process and are pursuing options to increase the use of VE by all states.

Mr. CARR. What is the FHWA doing to increase the states' use of value engineering?

[The information follows:]

As discussed in our 1993 VE Report to Congress, FHWA has concluded that a VE regulation is necessary before it can require all states to establish VE programs. The FHWA is in the process of developing, through the rule making process, a VE regulation that will require all states to establish VE programs.

Mr. CARR. Why hasn't the FHWA made VE mandatory by the States?

[The information follows:]

In the past, FHWA has opposed a Federal mandate requiring VE. The FHWA's VE policy was based on the classic state/federal working relationship and requiring states to use VE analysis on federal-aid projects would not be in the best interest of FHWA or the states. Instead, this policy recognized VE as a management tool, and as such, the States were afforded the flexibility to voluntarily apply and endorse the concept.

The FHWA has since concluded, based on its VE study used to prepare its 1993 VE Report to Congress, that a VE regulation is needed in order to give the FHWA the authority it needs to improve the overall effectiveness of its VE program. This VE regulation would address methods to require states to maintain VE programs without specifically mandating project/program requirements.

Mr. CARR. Who plays the major role regarding VE? Is it FHWA or AASHTO?

[The information follows:]

Both FHWA and AASHTO, because of their state/federal partnership roles, have a major role in implementing VE programs in all state highway agencies. AASHTO already has an VE policy encouraging the use of VE. By developing a VE regulation through the federal rule-making process, FHWA will assure AASHTO that it will have a significant input into the development of FHWA's VE regulation. In addition, FHWA will continue to actively promote the application of VE through education, encouragement, and providing technical assistance to a state wishing to establish self-sufficient VE programs.

FHWA ORGANIZATION AND STAFFING TASK FORCE

Mr. CARR. In April 1993, the Executive Director of the Federal Highway Administration established a task force to conduct an agency-wide staffing and organization review. The mission of the task force was to provide top management with alternative organizational frameworks and staffing allocations. This task force was scheduled to have completed its work by this spring.

What are the results of the task force assessment? What changes have been or will be made in organizational alignments or staffing based on the results of the task force?

[The information follows:]

The work of the FHWA Organization and Staffing Review Task Force is scheduled to be completed in April. At this time, it is anticipated that the product of the review will be a set of alternative staffing alignments to meet the agency's mission requirements for fiscal year 1996 and beyond. The Task Force has been directed to include a wide range of options, along with an analysis of their potential implications, for consideration by management.

Mr. CARR. The scope of the organizational review was limited because it was assumed that there would be a field presence in every state and no regional office closures were considered. Why were such limitations placed on the review?

[The information follows:]

The direction given to the task force, that there would be an FHWA presence in every state reflects a fundamental belief that the nature and success of the federal-aid highway program require it. The oversight and assistance activities of the highway improvement and motor carrier safety programs are carried out in an atmosphere of partnership and cooperation which can only be done face to face in the context of a continuing relationship.

During the course of the staffing review, the task force was directed to consider and analyze consolidation of functions and offices at the regional level. As a result of this clarification, the staffing alternatives presented to management will include changes from the existing regional alignment.

PROPOSED SURFACE TRANSPORTATION ADMINISTRATION

Mr. CARR. The review was also limited by stating that the creation of a Surface Transportation Administration, recommended by the National Academy of Public Administration was beyond its scope. Has such an organizational change been studied elsewhere in the Department of Transportation?

[The information follows:]

The primary objective of the FHWA organization and staffing review is to analyze alternative approaches for allocating staffing to meet the future responsibilities of the agency. While internal organizational impacts and alternatives are certainly germane to the analysis, it was not the purpose of the review to examine possible organizational changes beyond the current boundaries of FHWA. To the best of our knowledge, there has been no further study of a Surface Transportation Administration since that done by the National Academy of Public Administration.

LIFE CYCLE COST ANALYSIS

Mr. CARR. The President's recent Executive Order on "Principles for Federal Infrastructure Investments" reinforces the concept presented in ISTEA that life-cycle costs should be considered in the design and engineering of bridges, tunnels and pavements.

Specifically, the Executive Order states that in making infrastructure investment decisions, benefits and costs should be systematically analyzed and that they should be measured and discounted over the full life-cycle of each project.

At a December 1993 Federal Highway Administration symposium on life-cycle cost, the results of a recent American Association of State Highway and Transportation Officials survey of State practice were presented. Of the 38 states responding to the survey, only 27 indicated that they used life-cycle cost analysis in making highway decisions.

Last year, in a response to a question, FHWA indicated that states are required to perform a life-cycle cost analysis of alternate designs for new and reconstructed pavements and major rehabilitation projects. In your opinion, how many states are not in compliance with these federal requirements?

[The information follows:]

The AASHTO survey is the most recent information on state highway agencies that are using life cycle cost analysis in highway decision making. The survey indicates that approximately 70 percent of the states regularly use life cycle cost analysis.

Mr. CARR. What guidance does FHWA provide states on the analysis they must perform in order to meet the requirements?

[The information follows:]

With the advent of ISTEA and the resultant Management System Regulations FHWA has been working closely with AASHTO to better define life cycle cost analysis and develop supporting guidance. Recent efforts include the AASHTO survey of the states on their use of life cycle cost analysis and the December 1993 jointly sponsored FHWA/AASHTO symposium on life cycle costing. The primary objective of both these efforts was to expand our knowledge of the state-of-the-art/practice in this area, in order to better provide guidance on the life cycle cost analysis.

Symposium proceedings are being developed, which will provide guidance to the FHWA, state and local governments, and private entities on the application of life cycle cost analysis. Areas where further research or technical assistance are required are also being identified. The FHWA is also examining the training and research needs to implement life cycle cost analysis.

Mr. CARR. How does FHWA review and monitor state analysis practices?

[The information follows:]

As we implement the Executive Order and the ISTEA provisions, life cycle cost analysis procedures are reviewed as part of the process reviews made of the applicable state's procedures.

Mr. CARR. As a result of performing life-cycle cost analysis, do you believe more states will design pavements to last longer than the traditional 20-year life in highly trafficked areas?

[The information follows:]

The FHWA is currently preparing an interim life cycle cost analysis policy statement that will promote life cycle cost analysis that are not constrained by the traditional 20-year decision period. There is a trend towards using longer design periods, especially for major routes, which we expect to continue.

ENFORCEMENT OF OUT-OF-SERVICE ORDERS

Mr. CARR. A recent audit conducted by the Inspector General's Office found serious deficiencies in FHWA's monitoring of state enforcement of out-of-service violations. The Inspector General found that six of the eight states included in the audit issued fines in fewer than half of the cases in which a vehicle or driver was placed out-of-service.

When citations were issued, they were not issued for all the safety violations identified during the inspection. In Texas, only 18 percent of vehicles or drivers with out-of-service defects were fined; and only 53 percent of all identified out-of-service defects received citations. At the other end of the spectrum was Utah, where 84 percent of vehicles or drivers with out-of-service defects were fined and 94 percent of all identified out-of-service defects received citations.

One intended benefit of penalties for out-of-service defects is to deter future safety violations. Is any deterrent effect achieved when motor carriers are not fined for safety violations?

[The information follows:]

The primary focus of FHWA's motor carrier safety program is to prevent the continued operation of unsafe drivers and vehicles. To place a driver or vehicle out-of-service is an extremely serious sanction, with considerable economic consequences for the motor carrier. Pickup and delivery schedules are adversely affected, and required roadside repairs are usually performed at premium rates. Further, out-of-service violations may affect a carrier's safety rating and probability of being selected for a compliance review. Under these circumstances, it is unclear whether additional monetary penalties would have any further deterrent effect.

The FHWA, however, believes that the judiciary understands the importance they play in supporting the commercial vehicle safety program. Accordingly, we have initiated a Judicial/Executive Branch outreach program to train judges and prosecutors. We will also continue to encourage uniformity among the States on their inspection and verification program during our peer reviews.

Mr. CARR. How do you explain the inconsistent issuance of fines by the states for mechanical or loading defects that are so severe that the vehicle is to be taken off the road immediately?

[The information follows:]

Many states have had commercial motor vehicle enforcement programs in place for years, predating the MCSAP. The states including their legislative, enforcement, and judicial branches have their own penalty schedules that are not necessarily similar to those of surrounding states. Even at the county level within the same state, penalties may not be uniformly imposed for identical offenses. In addition, the decision to issue citations is commonly left to the officer on the scene, possibly resulting in inconsistencies.

The FHWA, however, is very concerned with issues of uniformity and will encourage consistent enforcement. We will initiate a peer review process to evaluate and improve state inspection programs and obtain uniformity. Also, the Judicial/Executive outreach program has as its focal point the training of state and local judiciary on the importance of appropriate fines to support the commercial vehicle inspection program, as well as the adoption by the states of the CVSA maximum fine schedule.

GUIDANCE TO STATES ON OUT-OF-SERVICE ENFORCEMENT

Mr. CARR. Does the FHWA have a policy to provide guidance to states concerning the issuance of fines or citations when a vehicle or driver is placed out-of-service?

[The information follows:]

Yes, the FHWA encourages the states to issue effective fines and penalties that promote compliance and serve as a deterrent to unsafe practices. We have developed training materials, and have begun to pilot this training to judges on the importance of appropriate fines to support the commercial vehicle inspection program. We also encourage the states to adopt the CVSA maximum fine schedule and require them to provide information on their fines and penalties in their annual grant applications. However, "pay tickets" are only one of several sanctions that a State may impose as a deterrent to future noncompliance. For example, state compliance reviews resulting from excessive out-of-service rates can affect a motor carrier's safety rating. Further, there are serious consequences for motor carriers when placing drivers or vehicles out-of-service, including disruption of pickup and delivery schedules, and the high cost of obtaining the required roadside repairs.

The FHWA is continuing to work with the states to ensure effective, uniform treatment of motor carriers and drivers in enforcement actions.

COMMERCIAL VEHICLE SAFETY ALLIANCE FINE SCHEDULE

Mr. CARR. The 1991 Motor Carrier Safety Act provides that states implement into law and practice the recommended fine schedule published by the Commercial Vehicle Safety Alliance—CVSA—to the maximum extent practicable. The Committee understands that only three states have adopted the CVSA recommended fine schedule.

What incentives has the Office of Motor Carriers put into place to encourage states to adopt and implement this schedule?

[The information follows:]

The CVSA fine schedule is intended for use by state enforcement agencies as they recommend to their judiciaries and legislatures the maximum levels of fines that should be considered when charges are brought for out-of-service violations. It is intended to enhance enforcement uniformity among the states and to serve as guidelines to those jurisdictions with no current consistent or conforming penalty structure. In the states' MCSAP annual grant applications, they report on their fines and penalties and on the status of adoption of the CVSA maximum fine schedule.

To further encourage adoption, the FHWA is currently working with state personnel on the Judicial/Executive outreach project, and will support pilot training activities this fiscal year. The primary mission of this project is education of legislative, judicial, and law enforcement groups in all States, emphasizing the adoption of the CVSA maximum fine schedule. After these initiatives have been implemented, we will assess their success in meeting the requirements of the statute, and will decide whether additional measures are warranted.

VERIFICATION OF DEFECT REPAIRS

Mr. CARR. Over the years, this Committee has urged the Office of Motor Carriers to increase its efforts to ensure that drivers do not continue to operate defective vehicles when they are placed out-of-service in roadside inspections.

However, the Inspector General's Office found in its recent audit that state inspectors allowed vehicles and drivers to leave inspection sites before out-of-service safety violations were corrected, and did not consistently place motor carriers out-of-service when warranted. Inspectors also did not make effective use of on-site reinspections and carrier self-certifications. Consequently, vehicles with safety defects were allowed to return to highways, thereby increasing the risk of accidents.

FHWA policy provides that vehicles be marked "out-of-service" and not operated until all out-of-service deficiencies are corrected. What changes will you make to ensure that this policy is actually implemented by states?

[The information follows:]

Before returning to service, motor carriers are required to make sufficient repairs so that the vehicle no longer meets the out-of-service criteria. Verification of these repairs is critical to the effectiveness of our motor carrier safety programs. We share the concerns that some drivers are violating out-of-service orders and are returning to the highway with unsafe vehicles.

While the states have a number of programs and initiatives underway, we will take a "fresh look" at this issue to evaluate what more needs to be done. For example, we would like representatives from several States to conduct a peer review of the states' programs in this area and identify "best practices" that can be shared with other states. The states' peer review group would also be asked to look at the possibility of withholding funds from those States that are not fulfilling the out-of-service verification requirement of MCSAP. In the longer term, we are also exploring a number of IVHS technologies and data systems that can be used to track and monitor out-of-service vehicles. The new CDL rule making violations of out-of-service orders a CDL disqualifying offense will strengthen verification activities.

This is a critical issue and we have assigned a very high priority on the development of a comprehensive approach to effective enforcement strategies on out-of-service verification.

IDENTIFYING OUT-OF-SERVICE VIOLATIONS

Mr. CARR. The Inspector General also found that some state enforcement plans did not provide for the conduct of covert operations to detect out-of-service violations even though this is required by FHWA regulations and the plans are reviewed by FHWA regional staff. Does the Office of Motor Carriers agree that covert surveillance operations are effective in identifying out-of-service violations?

[The information follows:]

While covert activity are *effective* in identifying out-of-service violations, they may not be *efficient* unless the state has a significant problem. In those states, covert activities may serve as an additional deterrent to carriers violating out-of-service orders.

While we expect to have more complete data for fiscal year 1994, our limited data for 1993 indicate that 2.5 percent of vehicles observed at the beginning of the covert operations were still in violation after being rechecked.

The opinion of many of our state partners is that their particular states do not have a problem and that the funding used to conduct covert activities could be of a better benefit by conducting more inspections and out-of-service verification activities rather than covert surveillance. We also found that many states spent numerous hours on covert surveillance with no results.

Instead of requiring every state to conduct some type of covert activity, it may be a more effective policy to require only those states that have significant problems with out-of-service order violations to conduct covert activity.

We will review the data collected from the activities conducted by the states in fiscal year 1994 and make a more conclusive determination. We propose to establish a state represented peer review group to identify out-of-service "best practices" that can be shared among states. In addition, we are looking at a number of methods to improve compliance that may be more cost-effective than the use of covert operations. The covert out-of-service verification, as well as new IVHS technologies, are two examples we are exploring.

Mr. CARR. What has proven to be the most effective procedure for catching violators of out-of-service orders?

[The information follows:]

While the most effective procedure for ensuring compliance with out-of-service orders is reinspection by an enforcement official, this is not always possible or cost effective. About one-fourth of vehicles placed out-of-service are reinspected before they return to the highway.

We are working with the states to develop new and innovative activities to ensure compliance with out-of-service orders. We are also testing new IVHS technologies to support the state's verification activities. Several states report that they find inspection site verifications and surprise visits to the carriers within the states that do not return the certified inspection form to be effective.

While the states have a number of programs and initiatives underway, we will take a "fresh look" at this issue to evaluate what more needs to be done. As a first step, we would like representatives from several States to conduct a peer review of the states' programs in this area and identify "best practices" that can be shared with other states.

Mr. CARR. Has the Office of Motor Carriers ever denied funding to a state due to poor enforcement of out-of-service orders?

[The information follows:]

To date no funding has been denied any state for failing to enforce out-of-service order violations.

The FHWA believes that out-of-service verification is a critical issue and places high priority to development of a plan to address this issue. Currently, we are working with the states to develop, test and evaluate effective strategies and technologies to ensure effective and efficient enforcement of out-of-service order violations. We also propose to establish a group of representatives from several states to conduct a peer review of the states' programs in this area and identify "best practices" that can be shared with other states. This group will also look at the possibility of withholding funds from those states that are not fulfilling the out-of-service verification requirement of MCSAP.

CERTIFICATION OF DEFECT REPAIRS

Mr. CARR. When a vehicle or driver is placed out-of-service, the motor carrier must certify that the defects are corrected. However, many carriers fail to submit the correction certifications. What are the practical problems that States encounter with the self-certification process?

[The information follows:]

We require motor carriers to return to the issuing agency inspection forms, within 15 days, certifying that the repairs were made. As part of MCSAP, the states maintain tracking systems to ensure that this is done. In light of all the requirements in the MCSAP placed on the state from ISTEA and due to other operational changes, followup on this requirement has not been a top priority.

Moreover, we are concerned that a significant amount of resources could be shifted away from doing inspections (and identifying vehicles and drivers that should be placed out of service) to chasing paperwork from motor carriers who did repairs, but did not send the certification to the state. Carrier-reported compliance data is generally not as reliable as other sources. This is similar to the carrier accident reporting forms (50T and 50B) which were recently eliminated because they were ineffective. We believe that the states' and our limited resources should be directed at those carriers who are the highest risk and those with identified out-of-service violations.

Over the next year, we will begin to work with the states and the motor carrier industry to identify problems and opportunities to improve or replace these verification systems.

MOTOR CARRIER SAFETY COMPLIANCE REVIEWS

Mr. CARR. Does the Office of Motor Carriers target for safety compliance reviews those motor carriers who have out-of-service violations but fail to certify that they have been corrected?

[The information follows:]

Yes, the Office of Motor Carriers targets for safety compliance reviews those motor carriers which have out-of-service violations whether or not they certify that the violations were corrected.

PENALITIES FOR FALSE CERTIFICATIONS ON DEFECT REPAIRS

Mr. CARR. Is there a problem with motor carriers who falsely certify that out-of-service defects have been corrected and, if so, do you think should there be penalties for such false certifications?

[The information follows:]

We do not have any information which would lead us to believe that there is a problem with motor carriers falsely certifying that out-of-service defects have been corrected. The current penalty amount is $10,000 for this violation.

However, we are addressing the problem of verification of compliance of out-of-service orders as part of a peer review process. Additionally, we target motor carriers who have vehicles or drivers placed out-of-service whether or not the carriers certify.

RULEMAKING ON PENALTIES FOR OUT-OF-SERVICE NONCOMPLIANCE

Mr. CARR. ISTEA directed FHWA to issue final regulations by December 1992 to establish sanctions for drivers who disregard out-of-service orders. A notice of proposed rulemaking was not issued until January 15, 1993, 11 months after the deadline.

When will the FHWA issue a final rule to implement this requirement and what are the reasons for the substantial delay?

[The information follows:]

The FHWA expects to publish the final rule in the *Federal Register* this spring. The FHWA needed to resolve technical issues concerning references to the Commercial Vehicle Safety Alliance out-of-service criteria in the rulemaking.

Mr. CARR. The notice of proposed rulemaking concerning penalties for violations of out-of-service orders indicated that the FHWA would require state compliance with the proposed rule no earlier than October 1, 1995, which would be nearly three years after Congress mandated that a rule be promulgated. What was the justification for proposing such an ambiguous and delayed compliance date?

[The information follows:]

State legislation and procedures must be revised to incorporate new requirements into existing systems. The FHWA extended the deadline for achieving substantial compliance with the CDL program to October 1, 1996, to allow three years for state compliance. This time period is also consistent with the federal preemption guidelines outlined in Motor Carrier Safety Assistance Program regulations. In the interim, we will assist states in developing appropriate legislation. Reviews of the states' compliance status will be conducted to identify those states that are not or are having difficulty coming into compliance with the Congressionally mandated items.

Mr. CARR. Which states have the most severe problems with violations of out-of-service orders?

[The information follows:]

Due to the limited data collected for the states' first year of covert activities we cannot yet determine which states have the most severe problems.

We propose to have a group of state representatives assembled to address the out-of-service verification program to also look at the data collected to determine those states with a severe problem.

MOTOR CARRIER SAFETY FITNESS REVIEWS

Mr. CARR. The 1993 Annual Report for the Office of Motor Carriers indicates that only about half of the 275,000 motor carriers regulated by FHWA have received safety fitness ratings, and that the sheer number of carriers, including 20,000 new entrants each year, precludes each and every carrier from getting an FHWA safety rating.

How do you determine which carriers should be targeted for safety reviews?

[The information follows:]

The FHWA prioritizes unrated motor carriers for safety reviews based on the following factors associated with either positive or adverse safety outcomes. The first factor is the potential severity of accidents in which the carrier is likely to be involved. It is measured by the commodity classes being transported with special emphasis on those carriers transporting hazardous materials or passengers. The second factor is the exposure of the motor carrier to the nation's highways. This is measured by miles traveled by the motor carrier. The third factor is past safety performance of the motor carrier which is measured by the results of roadside inspections.

Our goal is to eliminate the safety review as the initial on-site contact for unrated motor carriers. With our limited resources, we will perform more compliance reviews— these are more accurate assessments of motor carrier's safety fitness.

Mr. CARR. Under your current safety rating system, it is possible for a motor carrier with an unsatisfactory safety rating to be safer than a carrier that has never been rated. An article in the March–April 1992 issue of *Transportation Executive Update* also raised the issue of new carriers who lack any safety record. According to the article, the lack of emphasis upon new entrants is all the more surprising because FHWA is aware of data that indicates that, as a class, these motor carriers are more likely to be ignorant of or ignore safe operating procedures.

Please comment on whether this is an accurate statement and how your safety fitness program addresses these concerns.

[The information follows:]

Our strategy is to use our resources in a manner that targets for review motor carriers, whether rated or unrated, which have demonstrated less than satisfactory safety performance.

It is possible for a short period of time for a motor carrier with an unsatisfactory safety rating to be safer than a carrier that has never been rated. The current rating process is a result of on-site reviews. Forty-two percent of the interstate carriers are rated. With limited resources we are unable to rate all motor carriers. Therefore, we are targeting only those carriers with demonstrated non-compliance for on-site reviews. We believe we can use data to monitor carriers' safety and compliance rather than only through on-site reviews. We are developing the best indicators to perform this monitoring.

As our information systems improve, the information will be used to target unsafe motor carriers and monitor the performance of those carriers.

Currently, we are evaluating several additional factors to monitor and target unsafe carriers for review. These include, for example, motor carrier's preventable recordable accident rates, the motor carrier driver out-of-service rates, and the motor carrier vehicle out-of-service rates. We have also initiated a study to identify improvements to the safety fitness determination process. Included in the study are initiatives for new entrants, which will rely heavily on their on-the-road driver and vehicle performance. Using these types of performance-oriented information to a greater extent will identify carriers who have less than satisfactory on-the-road performance to receive on-site reviews. Through a full investigation of the carrier's safety management practices during compliance reviews, FHWA works with these carriers to ensure compliance.

Mr. Carr. Last year, the National Transportation Safety Board investigated a charter bus accident in Vernon, New Jersey in which six people were killed. The Safety Board determined the probable cause of the accident to be the bus driver's failure to maintain the bus adequately and his deliberate disregard of safety requirements by operating the bus knowing that its brakes were defective.

The Safety Board also found that contributing to the accident was the failure of the State of New York to inspect the bus and to ensure that its deficiencies were corrected and the FHWA's inadequate system for identifying deficient carriers. It appears that, at least in this case, your safety oversight mechanisms broke down.

How would you prevent the reoccurrence of a similar accident?

[The information follows:]

Since the accident, we have made some progress with this issue. We have: Improved our system for identifying carriers to ensure all ICC carriers are in our database; and in conjunction with the CVSA, developed new bus inspection training materials, including a video instruction unit, to increase the ability to inspect passenger vehicles.

Several states have also trained their state police to conduct inspections in conjunction with traffic stops. Thus, FHWA expects these initiatives to increase the level of bus inspections and bus inspections are now one of our priorities.

Prior to July 29, 1992, the FHWA was not automatically adding applicants for ICC permanent authority to the files. The FHWA assumed in its procedures that: (1) the ICC was sending the appropriate FHWA motor carrier forms to the applicant who would then file the form with us; and (2) the applicants for authority would apply for emergency and/or temporary authority before applying for permanent authority (in such a case the record would have been created with FHWA). After July 29, 1992, we changes this procedure so all applicants for emergency, temporary, and permanent authority are automatically added to our files.

MOTOR CARRIER SAFETY COMPLIANCE AND ENFORCEMENT STRATEGY

Mr. Carr. Where are you putting your greatest emphasis in the Motor Carrier Safety Program—the safety compliance reviews or the roadside inspections—and what is the relative efficacy of each approach in securing safety improvements?

[The information follows:]

A major *safety strategy* is building a state and federal safety compliance and enforcement program that targets problem motor carrier operations for improvement. The roadside inspection and the on-site compliance reviews are *both* important tools and complement each other in changing the safety behavior of problem motor carrier operations and reducing the risks of death, injuries, and property damage on our nation's highways. In the long term, we hope to be able to evaluate our program to find an optimal balance of activities that provides enough state and federal resources to conduct compliance reviews on identified problem motor carrier operations without significantly reducing the roadside inspection database or our ability to immediately remove "high-risk" drivers and vehicles from the highway.

The on-site compliance contact at a company site is very effective. This review is an in-depth look at the entire company safety operations including *all* of the trucks, drivers, insurance, operations, and safety fitness. The result of a compliance review is an assessment of the company safety operations and the assignment of a "safety fitness rating" based on the findings. Problem motor carriers are placed in a national selective compliance and enforcement program and follow-ups are continuous until the motor carrier obtains a "satisfactory" safety fitness rating. Companies that fail to respond are subject to "company" out-of-service orders" (out of business). Finally, the compliance review collects and records "before" and "after" accident and violation data and provides the best opportunity for evaluating program efficiencies and effectiveness.

During roadside inspections, enforcement officials immediately remove imminently hazardous motor vehicles from the highway (vehicle out-of-service orders).

Also, tired, fatigued, and potentially dangerous drivers are immediately removed from the highway. Inspection information is then entered into a national SAFETYNET and is used in the sorting process in providing federal/state field staff a profile of problem motor carrier operations. Carrier out-of-service rates are continually monitored as an important statistic for evaluating program effectiveness and a major indicator for compliance reviews. If enforcement cases are initiated the inspection information supports this compliance and enforcement effort.

MOTOR CARRIER PILOT PROJECT

Mr. CARR. The Office of Motor Carriers and several states are jointly conducting a pilot project to study the feasibility of integrating carrier safety data, available through SAFETY NET, a commercial driver licensing system, and other sources, into a single safety monitoring system linked with state motor vehicle registration systems.

What is the status of the pilot project and what do you hope to learn from it?

[The information follows:]

The steering committee of 11 states, with input from industry, has developed operational procedures, user requirements and a sanctioning process. The committee, with contractor support, is developing the overall system design.

Five states have agreed to pilot test the Commercial Vehicle Information System (CVIS) program. They are: Iowa (lead state), Colorado, Minnesota, Oregon, and Indiana. The five pilot states are currently preparing individual CVIS implementation plans to define key implementation activities, timeframes, and cost estimates. We expect to begin pilot testing CVIS in at least one pilot state early in 1995.

The study is proposed to determine: The operational and technical feasibility of linking safety fitness to vehicle registration; the costs and benefits of nationwide implementation; whether CVIS improves motor carrier safety; and the extent of likely attempts by unsafe carriers to evade the program.

NAFTA'S IMPACT ON MOTOR CARRIER SAFETY

Mr. CARR. What are the most significant motor carrier safety enforcement issues generated by the passage of NAFTA and how are you addressing those issues?

[The information follows:]

NAFTA will increase foreign motor carrier operations in the U.S., which will have a direct affect on motor carrier safety programs. In order to ensure that safety is not compromised and meets the NAFTA provisions, FHWA has begun a number of initiatives.

The FHWA is sponsoring a study by the International Association of Chiefs of Police to address specific cross-border safety, size and weight compliance, and enforcement issues and develop operational strategies once the NAFTA provisions are implemented. Also, the study will be completed in spring 1995 and will help determine future funding requirements for the border states. In fiscal year 1995, additional MCSAP funds will be provided to border states to maintain the current level of safety enforcement while commercial motor vehicle traffic increases.

The FHWA's Office of Motor Carriers has also established an operational International Technical Assistance Group (ITAG) of federal and state representatives to plan, coordinate, and implement the joint state and federal border compliance and enforcement program. This operational group is working very closely with Mexican safety agencies and its staff.

In addition, the FHWA is training U.S. Customs, Immigration, and Naturalization Service officials, and state drug interdiction officers on one safety regulation.

Mr. CARR. Some observers believe that enforcement of vehicle weight restrictions will pose the most difficult safety enforcement challenge under NAFTA.

Can you comment on what weight restrictions Mexico currently imposes on commercial motor carriers, and how those requirements will be harmonized with U.S. weight restrictions.

[The information follows:]

Mexican weight limits are generally higher than comparable limits in the U.S. The maximum gross vehicle weight allowed in Mexico is 136,700 pounds. While 80,000 pounds remains the maximum gross vehicle weight in most states, grandfather rights and permit operations allow higher weight for certain combination vehicles in several states.

The size and weight subgroup under the U.S./Mexico Transportation Work Group is currently reviewing Mexico's new weight regulations as part of the harmonization requirements set for them under NAFTA.

Mexican vehicles are subject to U.S. size and weight laws. Therefore, vehicles that violate these laws without state permits can be subject to sanctions.

Mr. CARR. The justifications indicate that the fiscal year 1995 request for the Motor Carrier Assistance Program—MCSAP—will provide increased funding for safety compliance activities by the states along the Mexican border. What will be the share of the additional MCSAP funds for the states most immediately affected by additional commercial truck traffic from Mexico?

[The information follows:]

The FHWA will set aside additional MCSAP grant funds for border states to maintain the current level of safety enforcement while commercial motor vehicle traffic increases. To help determine the specific need for future MCSAP funding, FHWA is sponsoring a study by the International Association of Chiefs of Police to address this issue, as well as, other safety concerns. This study is expected to be completed in March 1995. In the meantime, we will work with the border states to monitor increases in commercial truck traffic and to help evaluate their increasing enforcement demands and how MCSAP funds can be used to help meet these needs. We do not have specific estimates of the states' grants requests for these activities at this time.

Mr. CARR. Has the Office of Motor Carriers considered any targeting mechanisms to increase MCSAP funds to border states other than increasing funding to all states that participate in the program?

[The information follows:]

FHWA will provide supplemental MCSAP grants to the border states to help them address increases in commercial motor vehicle traffic resulting from NAFTA.

DRIVER FATIGUE

Mr. CARR. A significant portion of commercial truck accidents is due to human error or driver related factors such as fatigue, substance abuse, inexperience, et cetera. Operator fatigue was identified as a causal factor in 31 percent of the accidents that the Safety Board investigated for its safety study of fatal heavy truck accidents. Driver shortages and driver turnover are significant problems in certain segments of the trucking industry, with annual turnover at 100 percent in some firms.

What implications do you see in these trends with regard to truck safety?

[The information follows:]

Fatigue, substance abuse, inexperience, driver shortages, and turnover are significant factors in commercial motor vehicle safety. If a high level of any of these factors exists, there will be a negative impact on safety. The implications are disturbing. The FHWA is examining driver related issues for this very reason.

The FHWA has spent approximately $4 million to investigate driver fatigue over the past 5 years. We have completed the major over-the-road portion of the planned data collection activity in the Driver Fatigue and Alertness Study. Our research contractors are in the process of analyzing the largest collections of behind-the-wheel data that has been collected in the last decade. We are also preparing to collect data for a Congressionally-mandated study of fatigue and stress in longer-combination-vehicle drivers.

Other research is underway on performance-based assessment devices that can be installed in a commercial motor vehicle, vehicle-installed driver loss-of-alertness warnings (at NHTSA), incidence and effects of sleep apnea, and effects of circadian rhythms and work/rest cycles on alertness levels.

We are conducting two studies, required by the ISTEA of 1991, on driver training: entry-level driver training needs, and training standards for longer-combination-vehicle drivers and instructors.

Mr. CARR. The National Transportation Safety Board and others have long advocated an aggressive federal program to address the problems of fatigue and sleep issues in transportation safety.

Would you outline the Office of Motor Carriers' strategy for addressing driver fatigue in commercial motor vehicle accidents.

[The information follows:]

The FHWA is placing a very high priority on human factors issues. In fiscal year 1993, the FHWA established a new High Priority Research Program area, "Driver Proficiency," to ensure that commercial motor vehicle drivers are physically qualified, have the knowledge and skills necessary to operate safely, are appropriately licensed, and are alert and unimpaired behind the wheel.

The projects in this area will: develop effective and safe countermeasures to loss-of-alertness along with potential revisions to the hours of service regulations; develop more effective and economical training methods; review driver medical qualification standards in light of recent advances in evaluation and treatment of various disorders; improve detection and enforcement of prohibitions on substance abuse; provide a foundation from which the Commercial Driver's License can reflect physical qualifications as well as the driver's knowledge, skill, and performance record; and develop, through a contract with Trucking Research, Inc., in-cab and terminal devices to assess the alertness of commercial drivers.

COMMERCIAL DRIVER FATIGUE STUDY

Mr. CARR. You have under way an extensive study on commercial driver fatigue and alertness that is intended to develop baseline information on how drivers perform in realistic conditions, factors that contribute to loss of alertness, and the impact of fatigue on industry drivers.

While a final report to Congress is not due until next year, please update us on the status of the study and share any interim findings that you have made.

[The information follows:]

The project on fatigue and stress in drivers of longer combination vehicles (LCVs) is the only fatigue-related study requiring a report to Congress. This work is being done in concert with the National Highway Traffic Safety Administration. It is a separate project from the Driver Fatigue and Alertness Study.

A project plan for the LCV study has been developed, and over-the-road data collection is planned to start by early summer. The FHWA will submit a report to Congress next year on the effects of LCV operation on driver stress and fatigue levels, as requried by section 4007(d) of ISTEA of 1991. If the research is not complete by the deadline, we will submit an interim report on results obtained to date.

COORDINATION WITH OTHER AGENCIES ON DRIVER FATIGUE ISSUES

Mr. CARR. Driver fatigue and loss of alertness are safety issues that also are critical in other transportation modes, particularly aviation and rail transportation. What specific mechanisms does the FHWA use to coordinate work on fatigue issues with the FAA and FRA?

[The information follows:]

The FHWA is a very active participant within the DOT human factors working group. This is a group established in March, 1991 by the DOT R&D Coordinating Committee. It serves as a forum for information exchange among program managers and in-house researchers and for sponsorship of critical cross-modal human factors research activities.

In addition to the formal quarterly meetings of the working group, members often meet informally to discuss progress on their studies, review research plans, and serve as members of proposal review panels. In this manner, the FHWA has had the opportunity to review and comment on portions of the data collection methodology in the FRA's ongoing study of locomotive engineers. FHWA hopes to soon begin work with the FAA to add a promising fitness-for-duty evaluation device to our study of rest-and-recovery patterns of commercial motor vehicle drivers.

Mr. CARR. Testimony in previous years indicated that a significant accomplishment of the Motor Carrier Research Program was the development of a set of new integrated technologies to measure the performance and physiological characteristics of driver fatigue. Can you tell us more about your research results in this area and the potential of these technologies for identifying and diagnosing driver fatigue?

[The information follows:]

Although new technologies have been developed, we are still learning about the power of integrating various performance and physiologically-based measurements of driver alertness.

We are drawing on a number of research efforts using new technologies currently underway which will have a high potential for identifying and diagnosing driver fatigue: The joint FAA/NASA research on airline pilot fatigue; our research effort which is testing performance-based assessment devices that can be used at a motor carrier's terminal or installed in a commercial motor vehicle; and NHTSA's use of a numerical model to assess the effects of circadian rhythms and work/rest cycles on alertness levels.

COMMERCIAL DRIVER LICENSING

Mr. CARR. The Commercial Motor Vehicle Safety Act required all drivers of commercial vehicles to have a valid commercial driver license—CDL—by April 1, 1992. State user fees fund the annual operating costs of the commercial driver license information system.

How many commercial driver licenses have been issued to date?

[The information follows:]

As of March 1, 1994, approximately 6.7 million commercial driver's licenses have been issued.

Mr. CARR. The annual cost of the CDL information system reached nearly $8 million in 1992. What is your most recent information regarding the cost of operating the CDL information system?

[The information follows:]

The CDL information system was established with grant funds provided in the Commercial Motor Vehicle Safety Act of 1986. There have been no new federal funds provided since the 1991 grants provided in that Act. Currently, all operating costs are supported by user fees.

The most recent cost information for operation of the CDL information system is for fiscal year 1993, which was $6.5 million. We expect the cost for fiscal year 1994 to be about the same amount.

Mr. CARR. Does the Office of Motor Carriers have any objective measures of the benefits realized from the commercial driver licensing program?

[The information follows:]

The FHWA is in the process of developing a plan to adequately measure the implementation effectiveness of the CDL program nationwide. This plan will also identify objective measures necessary to provide the essential foundation to quantify program accomplishments. We have long recognized the need to initiate such an action; however, we made the conscious decision to delay the effectiveness study until such time as the FHWA promulgated its final rule requiring states to substantially comply with the 22 Congressionally mandated items. We believe that by waiting until state compliance requirements are mandated, the FHWA will be in a much better position to determine the true effectiveness of the program from a National perspective.

We intend to analyze CDL data and systems in each state to ensure compliance with CDL. This data and analysis of it will help identify areas that improve or enhance driver proficiency in driving representative vehicles and that ultimately contribute to the enhancement of highway safety. Moreover, one of the key components of the research strategy is to identify effective mechanisms which assure that problem drivers (unqualified) are denied the opportunity or privilege to drive on our nation's highways.

Recently, the Senate Appropriation's Committee provided guidance on what they believed to be one important measure of the CDL program's effectiveness; i.e. how many drivers have been suspended or revoked after September 30, 1993, on a State-by-state basis. The FHWA's plan will include the Senate Appropriation Committee's measure as well as other factors considered important elements or objective measures of effectiveness.

EFFECTIVENESS OF THE CDL PROGRAM

Mr. CARR. What is the status of the Office of Motor Carriers review of the program's effectiveness?

[The information follows:]

The FHWA is currently working with the states through AAMVA, AAMVAnet, Inc., and CVSA to develop a research plan and statement of work for a 2-year CDL effectiveness and benefits study. The contract is expected to be awarded by the summer of 1994. AAMVA and individual states will also be conducting studies in coordination with the FHWA efforts. Additionally, the FHWA is in the preliminary stages of a joint effort with the NHTSA to study the effectiveness of the national information systems that support driver licensing; Commercial Driver's License Information System; National Driver Register; and Driver Licensing Reciprocity program.

STATE IMPLEMENTATION OF THE CDL PROGRAM

Mr. CARR. What is the status of State implementation of the CDL program? What violation data are available and how many drivers have been disqualified since implementation of the license requirement?

[The information follows:]

As of April 1, 1992, all 51 jurisdictions have begun to issue CDLs. We expect to publish a final rule this summer. The rule will set forth the standards which states must meet to comply with section 12009(a) of the Commercial Motor Vehicle Safety Act of 1986 to avoid loss of Federal-aid highway funds, being reviewed by the Department.

The latest disqualification data available indicates approximately 2,584 drivers had their licenses suspended, revoked, or were otherwise disqualified (as of March 1, 1993).

Mr. CARR. What states do not have the ability to check the status of commercial driver licenses during roadside inspections? When will all states be able to conduct such checks?

[The information follows:]

Historically only law enforcement agencies had access to all DMV information via the National Law Enforcement Information System (NLETS). With implementation of CDLIS the DMVs gained access to information about all CDL holders, but only from their DMV offices.

Many states have designated a law enforcement agency as the lead for MCSAP in their state. States that designated other agencies such as DOTs or PUCs as the lead MCSAP agency, do not have roadside access to check CDL status. However, even in states with law enforcement lead agencies with legal access available through NLETS, the policy often is to discourage routine driver license checks because of dispatcher limitations which must handle the phone call from the officer, key it into NLETS, and read the results back to the officer when it comes back.

As part of a contract OMC has awarded to AAMVAnet, we are developing a capability for PCs to dial-up via AAMVAnet and obtain a CDL status. This capability will be made available to all MCSAP agencies for use at roadside inspection sites, and any other activities around the country where access to a CDL status, or driving history, is required and authorized.

We expect a functioning pilot capability sometime this summer, and progress toward finalization and distribution of a product to roadside sites around the country will proceed promptly, with at least 100 sites operational by the end of fiscal year 1995.

Mr. CARR. What additional information is needed to measure the results of the CDL program better?

[The information follows:]

The FHWA is close to entering into a contract based upon input from states through the AAMVA and CVSA to arrive at a comprehensive research design to measure the results of the CDL program. One of the key components of the research contract will be to identify information that is readily available and information that is not available but necessary to make an effectiveness determination. Upon completion of the research, the contractor is required to submit recommendation on CDL program improvements which could be implemented by States and/or FHWA.

TRUCK ACCIDENT DATA

Mr. CARR. It has been reported that truck accidents are underreported by as much as 40 percent. Moreover, the Transportation Research Board and others have recommended that the Department improve truck accident and travel data, especially as they relate to the reporting of nonfatal accidents, estimates of truck travel, and the identification of truck configurations.

If we lack comprehensive and reliable truck accident data, how do you know whether the Motor Carrier Assistance Program is effective in improving truck safety?

[The information follows:]

There are many ways of assessing the effectiveness of the MCSAP in improving truck safety. Although the number of inspections have increased each year, vehicle and driver out-of-service rates have steadily dropped. For example, in fiscal year 1990, the states conducted 1.6 million inspections with a 33.8 percent vehicle out-of-service rate and a 7 percent driver out-of-service. By 1993, inspections had risen to 1.9 million, but the percentage of vehicles placed out-of-service had dropped to 26 percent and drivers placed out-of-service had dropped to 6.6 percent. Fatal accident data maintained by NHTSA indicates that the fatal accident rate for combination vehicles has dropped from 5.2 in 1983 (first year of MCSAP) to 2.9 per 100 million vehicle miles travelled (VMT) in 1992; the fatal accident rate for medium and heavy trucks dropped from 4.1 to 2.5 per 100 million VMT during the same period. NHTSA notes that the total number of fatalities resulting from medium and heavy truck-involved accidents has dropped 22 percent since 1985, and has decreased each year since 1988. The average total accidents for combination vehicles has decreased from 266 per 100 million VMT in 1989 to 183 in 1992. During this same period medium and heavy truck average total accidents declined from 271 per 100 million VMT to 244 in 1992.

In addition to the decline in fatal accidents, average total accidents and vehicle and driver out-of-service violations, the MCSAP has provided the opportunity for states to develop, test and implement various technologies which enhance the inspection program; improve data collection; and contribute directly to commercial vehicle safety. Individual states have also developed innovative processes and procedures which have contributed to rapid declines in commercial vehicle accidents since the inception of MCSAP. The program has also provided the forum by which regulatory uniformity is being achieved.

Mr. CARR. What is the FHWA doing to address existing deficiencies in truck accident statistics?

[The information follows:]

Existing truck accident statistics are deficient because they are incomplete, nonuniform and not able to answer specific questions, e.g., LCV accident rates. They are incomplete because not all states are reporting truck accidents. Also, the data are not uniform because states use different accident reportability criteria, data elements, and definitions.

The FHWA is currently working with states to implement a new truck and bus accident electronic reporting system. At this time 34 states are electronically reporting accidents and the FHWA is working with the remainder to include them as soon as possible. Under the new system all state and local police officers are required to collect a standard set of 22 accident data elements developed by the National Governors' Association on each accident that involves at least one interstate or intrastate truck or bus, and that results in at least one fatality, one injury, or one vehicle towed from the scene of the accident.

As a result of both our and the states' efforts, we believe a national, reliable and uniform truck and bus accident database can be achieved within a few years.

Also, the FHWA designed the vehicle configuration data element to be compatible with the automatic vehicle classification equipment being developed by FHWA, so once IVHS systems are installed, it will be possible in the future to match accidents with exposure to calculate accident rates. As states implement the FHWA traffic monitoring procedures, the VMT data quality will improve.

Finally, the FHWA has contracted for a special study of the accident experience of longer combination vehicles compared with other types of trucks.

TECHNICAL ASSISTANCE TO RUSSIA

Mr. CARR. Let me ask you in closing just a couple of questions about the technical assistance program to Russia.

Is there an authorization for that?

Mr. SLATER. There is.

Mr. CARR. Where is it?

Mr. SLATER. We have got an authorization as relates to our entire international program and Russia is a part of that.

Mr. CARLSON. Under ISTEA, there is a section—I can't give you the exact reference——

Mr. CARR. This isn't a pop quiz. I am not trying to embarrass anybody.

Mr. SLATER. Section 6003.

Mr. CARLSON. I knew it was in Title VI. Basically, we have asked—in our 1994 request, we had $400,000 and in this budget request we have $800,000 for the general international program. We have asked for an increase of $1.6 million to attempt to respond to the Russian government, which has a World Bank loan and has asked us to assist them in setting up a federal-state structure, I guess a structure similar to Federal highways so they can get a highway program going similar to ours.

Mr. CARR. I don't have any problem with your helping them out; I think we ought to help them out. One of the tragedies of the old Soviet Union was that they paid precious little attention to their infrastructure. It was easier and cheaper—this is an actual case that I found when I was in Yalta one year—it was cheaper for a fruit grower in Yalta to take a crate of fruit on Aeroflot to Moscow and sell it outside the airport there—and then fly home, than it was to get the same crate of fruit on a highway to Moscow.

It is clear that their economic development is going to require massive infrastructure investment and changes. You ought to help them.

My concern in defense of this Committee's budget is that maybe you should get that money from the Foreign Operations Subcommittee. Just in terms of pure allocation of responsibility—I am glad you are helping them out and I think it is a good idea—but somewhere along the line it seems to me that this shouldn't come out of transportation funding.

Mr. CARLSON. The only thing I can say is it is our intention to attempt to get this program started. It is not our intention to have a long permanent program where we use funds specifically to aid Russia.

Mr. CARR. Think of it this way: If you do real well, they can send you to Moscow.

Mr. CARLSON. I am going Friday, as a matter of fact.

Mr. SLATER. Mr. Chairman, if I might comment—the way we view it is that it will provide, we think, some significant opportunities for businesses in the U.S. to take advantage of development that might occur there.

Also, I think it is important to note that the Russians, while they have access to expertise from countries around the world, wish to be like America in this regard. They want to establish our system there.

I think we would be well-served as far as creating greater opportunities for ourselves to be of assistance to them. We are talking about a small amount of money here.

The last point I want to make is that, interestingly, when the whole package was put together to assist Russia, there was very little attention given to transportation. It is almost as if we are continuing to deemphasize the importance of transportation even when it comes to a country that wishes to move from a communist regime to a democracy, that wishes to move from a socialist system to a capitalist system.

But I think that just underscores how we tend to take transportation for granted. With this hearing I think we, at least among ourselves, have said that transportation is important, that investment in infrastructure brings about a good return for the American people and for the economy.

Mr. CARR. Thank you very much.

Mr. WOLF. Could I just raise a question? I don't know that you would have any problems with that, too; I think we have to to be sensitive. I have voted for Russian aid. We have had translated the book by Zhirinovsky, who just got elected over there.

He is talking about washing their boots in the Indian Ocean, and there are things taking place.

Mr. SLATER. I understand.

Mr. WOLF. If you watched 60 Minutes and if you read his book and if you go over, and I will be glad to share with you his book in English. It is quite frightening. So we need to be careful we are not helping his troops get to the Indian Ocean to wash their boots.

Mr. SLATER. That is very important, yes.

ROAD PRIVATIZATION

Mr. WOLF. Look at the privatizing of roads and look what is taking place in my district. Former General Williams is doing an excellent job. I was out there.

I think either you or Mr. Carlson, or both, should some day go out and look to see what is going on out there. They are beating their target date dramatically and they have a new system whereby they bring everybody together in the compound if they have a problem, and they deal with it that day. Have either of you been out there?

Mr. SLATER. I have. As a matter of fact, just a few weeks ago I was there with the Deputy Secretary and you are right, it is a very impressive operation. I think we can learn a lot.

Mr. WOLF. I think so, too. You have been out there.

Mr. CARLSON. There are two things, that idea of getting together and holding costs down is a concept that we call partnering and we are encouraging all the highway agencies in the country to adopt that as part of their operating practice.

I think it will be very good.

I have not had a guided tour by the general or anybody on the staff out there, but I have driven the alignment on weekends on my own and the amount of speed with which they are developing that project is startling.

Mr. WOLF. Fantastic. Yet they are saving money as they finish earlier. But I was out there, at first I was somewhat skeptical, but I have been very, very impressed.

Mr. CARLSON. We are working on several innovative financing techniques in the Department of Transportation that we hope to successfully implement where we may be able to show some additional successes. I think I was asked about that last year, and I said what we need are some successes, and maybe we are going to have one and maybe we can get some more.

Mr. WOLF. Thank you, Mr. Chairman.

DEMONSTRATION PROJECT LIST

Mr. CARR. Well, thank you. Thank you for being here. We appreciate what you are doing. We would like to support you as best we can.

I want to come back to this problem we have. We need to solve it, and I would like to reiterate my request that maybe you pass on to the Secretary and the Director of OMB that we would like to see some kind of list of proposed rescissions.

Mr. SLATER. Yes.

[The information follows:]

The administration is not proposing the rescission of budget authority for specific demonstration projects. The following lists contain brief descriptions and summary data for the entire set of demonstration projects either authorized by ISTEA or appropriated by other relevant legislation.

ISTEA DEMONSTRATION PROJECTS

C:ISTEA16G
02/04/94

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Alabama	1105(f)2	Upgr E/W Corr-RT 72	DPS-A002(1)		UNK	11,938,000	5,348,224	720,000	4,628,224	6,589,776
Alabama	1105(f)8	Appalachian Regional Corridor X	DPS-8(1)		1984	59,200,000	26,521,600	0	26,521,600	32,678,400
Alabama	1105(f)9	Appalachian Regional Corridor V	DPS-9(1)-(8)		1979	25,400,000	11,379,200	5,787,505	5,591,695	14,020,800
Alabama	1106(a)12	Decatur: Keller Mem Brg	DPR-12(1) & (2)	1	1993	12,700,000	5,689,600	5,689,600	0	7,010,400
Alabama	1107(b)124	Patton Island Bridge	DPI-124(1)		1999	4,700,000	2,105,600	2,105,600	864,800	2,594,400
Alabama	1107(b)192	Imp to Anniston E Bypass US 431, HWY 21 N to Gold Spring inter I-20	DP1-192(1)		1995	11,000,000	4,928,000	200,000	4,728,000	6,072,000
Alabama	1107(b)30	Reconst W Tunnel Plaza Inter I-10 fr Va Str to Mobile Rv Tunnel	DPI-30(1)-(3)		1998	15,000,000	6,720,000	1,956,000	4,764,000	8,280,000
Alabama	1107(b)35	Const 4-lane Nwy to bypass Mont., AL & connect I-65&1-85	DPI-35(1)		1997	11,800,000	5,286,400	760,000	4,526,400	6,513,600
Alabama	1107(b)80	Black War Rv Br - AL	DPI-80(1)	3	1994	6,400,000	2,867,200	347,200	2,520,000	3,532,800
TOTAL						158,138,000	70,845,824	17,565,905	54,144,719	87,292,176
American Samoa	1108(b)22	Rehab 8 miles of Tau Rd fr Palessao to Fatuits AS	UNK		1994	1,100,000	492,800	0	492,800	607,200
American Samoa	1108(b)23	Rehab/Imp 8 miles of roadway fr Ofu to Olosfaga & Slie	UNK		1994	1,200,000	537,600	0	537,600	662,400
TOTAL						2,300,000	1,030,400	0	1,030,400	1,269,600
Arizona	1104(b)23	Inter Imp @ Oracle & Orange Gr in Tucson, Az	DPC-0023(001)		1997	3,900,000	1,747,200	184,000	1,563,200	2,152,800
Arizona	1106(a)95	Turquoise Trail Hwy	-		1997	5,900,000	2,643,200	0	2,643,200	3,256,800
Arizona	1106(b)74	Vet Memorial Inter/ Palo Verde Overpass Br Replace	DPU-0074(001)		1996	2,400,000	1,075,200	504,000	571,200	1,324,800
TOTAL						12,200,000	5,465,600	688,000	4,777,600	6,734,400

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Arkansas	1103(b)4	Desha Co: Study for AR-MS Great River Bridge	DPB-0004(001)		1992	800,000	358,400	0	358,400	441,600
Arkansas	1105(f)14	US-71, North-South Corridor	DPS-14(001)(004)(007)		1993	100,000,000	44,800,000	27,911,108	16,888,892	55,200,000
Arkansas	1105(f)15	Const of Hwy 71 fr Alma, Ar to La border	DPS-A015(001)	7	1994	63,744,800	28,557,670	0	28,557,670	35,187,130
Arkansas	1105(f)29	Hwy 412 fr Harrison to Mt Home	DPS-0029(001)(003)		1993	20,000,000	8,960,000	3,300,968	5,659,032	11,040,000
Arkansas	1105(f)4	Hwy 412 Siloam Springs to Springdale	DPS-0004(001)-(008)		1993	34,000,000	15,232,000	15,232,000	0	18,768,000
Arkansas	1105(f)5	Const of Hwy 412	DPS-5(001)(003)(004)	7	1994	56,000,000	25,088,000	2,190,918	22,897,082	30,912,000
Arkansas	1106(a)49	Imp US 65	DPR-0049(001)		1995	38,000,000	17,024,000	1,679,440	15,344,560	20,976,000
Arkansas	1106(a)50	Imp Phoenix Avenue	DPR-0050(001)		1995	7,900,000	3,539,200	0	3,539,200	4,360,800
Arkansas	1106(a)51	Study Bypass Alternatives for US 71	DPR-0051(001)		1994	3,000,000	1,344,000	8,000	1,336,000	1,656,000
Arkansas	1106(a)53	Const of Replace Br across the White Rv	DPR-0053(001)	10	1994	2,500,000	1,120,000	528,800	591,200	1,380,000
Arkansas	1106(a)54	Complete Const of 3 Inter on Hwy 63	DPR-0054(003)	4	1994	5,700,000	2,553,600	382,400	2,171,200	3,146,400
Arkansas	1107(b)100	North Belt Freeway Project	DPI-0100(002)		1993	8,900,000	3,987,200	2,675,330	1,311,870	4,912,800
Arkansas	1061(a)(1)	Uniform Traffic Control Devices	TCD-(1061)(001)		1992	200,000	89,600	1,162,975	(1,073,375)	110,400
Arkansas	1061(a)(2)	Uniform Traffic Control Devices	TCD-(1061)(001)		1992	1,000,000	448,000	0	448,000	552,000
TOTAL						341,744,800	153,101,670	55,071,939	98,029,731	188,643,130
California	1103(b)6	Upgrade Golden Gate Bridge	DPB-0006(001)		UNK	5,900,000	2,643,200	2,643,200	0	3,256,800
California	1104(b)1	Const of HOV Lns on I-70	DPC-0001(001)		UNK	7,400,000	3,315,200	0	3,315,200	4,084,800
California	1104(b)10	Const 1 Block Tunnel on Rt 15	DPC-0010(001)		UNK	5,000,000	2,240,000	66,446	2,173,554	2,760,000
California	1104(b)11	Extend I-110 N fr ***	DPC-0011(001)		UNK	10,100,000	4,524,800	900,000	3,624,800	5,575,200
California	1104(b)14	Imp 3 Grade Crossing	DPC-0014(001)		UNK	1,800,000	806,400	0	806,400	993,600
California	1104(b)15	Const 2 Park & Ride Facilities for I-80	DPC-0015(001)		UNK	7,700,000	3,449,600	0	3,449,600	4,250,400
California	1104(b)24	Victorville Palmdale Rd on I-15	DPC-0024(001)		UNK	2,700,000	1,209,600	712,800	496,800	1,490,400
California	1104(b)37	I 80 Richmond Prkwy Inter	DPC-0037(001)	5	1994	1,800,000	806,400	0	806,400	993,600
California	1104(b)40	HOV Lane Imp on Lawrence Expressway	DPC-0040(001)		UNK	10,100,000	4,524,800	2,513,070	2,011,730	5,575,200
California	1105(f)20	Imp on I-15 & I 40	DPC-C020(001)		1995	48,700,000	21,817,600	3,775,792	18,041,808	26,882,400

State	Public law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
California	1106(b)1	Bristol Street Project	DPU-0001(001)		UNK	4,100,000	1,836,800	1,836,800	0	2,263,200
California	1106(b)36	Grade Separation Project	DPU-0036(001)		UNK	6,600,000	2,956,800	0	2,956,800	3,643,200
California	1106(b)41	Conduct Environmental	DPU-0041(001)		UNK	1,000,000	448,000	0	448,000	552,000
California	1106(b)46	Relocate a Portion of Atlantic Blvd	DPU-0046(001)		UNK	4,700,000	2,105,600	0	2,105,600	2,594,400
California	1106(b)66	Gr separation projects(3)	DPU-0066(001)		UNK	7,100,000	3,180,800	0	3,180,800	3,919,200
California	1106(b)7	San Jose: Interchange Hwy 85/17	DPU-0007(001)		UNK	35,000,000	15,680,000	15,680,000	0	19,320,000
California	1106(b)71	Const of Public HOV Facilities	DPU-0071(001)		1995	14,800,000	6,630,400	1,147,469	5,482,931	8,169,600
California	1106(b)8	Safety Imp on Hwy 152	DPU-0008(001)		1997	5,900,000	2,643,200	0	2,643,200	3,256,800
California	1107(b)116	Const of Indust Blvd	DPI-0116(001)		1995	8,300,000	3,718,400	1,352,000	2,366,400	4,581,600
California	1107(b)12	Const of A, B, & C Segments of St Rt 76	DPI-0012(001)		UNK	14,400,000	6,451,200	0	6,451,200	7,948,800
California	1107(b)13	Carlsbad· Interchange Palomar Airport Rd/I-5	DPI-0013(001)		UNK	3,400,000	1,523,200	897,600	625,600	1,876,800
California	1107(b)37	Prliminary work on I-5 Project	DPI-0037(001)		UNK	6,700,000	3,001,600	0	3,001,600	3,698,400
California	1107(b)61	Widen & Reconst Bridge	DPI-0061(001)		1995	1,800,000	806,400	0	806,400	993,600
California	1107(b)71	Rt 156 Hollister Bypass	DPI-0071(001)		1995	900,000	403,200	0	403,200	496,800
California	1107(b)72	Rt 101	DPI-0072(001)		1996	4,200,000	1,881,600	0	1,881,600	2,318,400
California	1107(b)82	I-880/Alvarado-Niles Rd Interchange	DPI-0082(001)		1996	9,500,000	4,256,000	0	4,256,000	5,244,000
California	1107(b)86	Rt 58 Improvements	DPI 0086(001)		UNK	4,700,000	2,105,600	0	2,105,600	2,594,400
California	1107(b)87	Norwalk Blvd grade separation	DPI-0087(001)		UNK	4,700,000	2,105,600	0	2,105,600	2,594,400
California	1108(b)1	Inter @ Terminal Island Freeway & Ocean Blvd	DPM-0001(001)		UNK	11,800,000	5,286,400	0	5,286,400	6,513,600
California	1108(b)13	Purchase ROW & develop a Trans Corridor	DPM-0013(001)		UNK	15,100,000	6,764,800	441,156	6,323,644	8,335,200
California	1108(b)15	Const of a Multi-Modal Transit Parkway includes both Hwy & Transit Imp	DPM-0015(001)		1996	8,900,000	3,987,200	1,502,000	2,485,200	4,912,800
California	1108(b)18	Complete Const of Access Road	DPM-0018(0010		UNK	4,700,000	2,105,600	0	2,105,600	2,594,400
California	1108(b)2	Widening of Anaheim Str Viaduct	DPM-0002(001)		1995	11,800,000	5,286,400	0	5,286,400	6,513,600

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
California	1108(b)21	Upgrade Rt 87 fr 4 to 6 lanes including 2 HOV Lns a new Freeway Inter & Local Circulation System	DPM-0021(001)		1995	14,800,000	6,630,400	0	6,630,400	8,169,600
California	1108(b)3	Grade Separation Project	DPM-0003(001)		UNK	11,800,000	5,286,400	0	5,286,400	6,513,600
California	1108(b)30	Extend Rice Rd, Widen Hueneme Rd & Const Rt 1/ Rice Rd Interchange	DPM-0030(001)		1995	8,900,000	3,987,200	320,000	3,667,200	4,912,800
California	1108(b)31	Imp Ground Access	DPM-0031(001)		UNK	8,950,000	4,009,600	0	4,009,600	4,940,400
California	1108(b)36	Ave P8 Improvements	DPM-0036(001)		1995	3,600,000	1,612,800	0	1,612,800	1,987,200
California	1108(b)4	Widening Street & Grade Separation	DPM-0004(001)		UNK	11,800,000	5,286,400	150,000	5,136,400	6,513,600
California	1108(b)46	Grade Separation Project	DPM-0041(001)		UNK	9,500,000	4,256,000	0	4,256,000	5,244,000
California	1108(b)51	Long Beach Airport Access	DPM-0051(001)		UNK	8,500,000	3,808,000	0	3,808,000	4,692,000
TOTAL						369,150,000	165,379,200	33,938,333	131,440,867	203,770,800
Colorado	1106(a)60	Upgrade Farm to Market Rd	DPS-60		1994	2,900,000	1,299,200	0	1,299,200	1,600,800
TOTAL						2,900,000	1,299,200	0	1,299,200	1,600,800
Connecticut	1106(b)43	Rehab St Rt 99, Hartford	DPU-43(1)(3)(X)		1992	5,000,000	2,240,000	2,240,000	0	2,760,000
Connecticut	1106(b)44	Hartford· Improve access to Connecticut River	0044001		1992	2,300,000	1,030,400	1,030,400	0	1,269,600
Connecticut	1107(b)198	Rehab or replace various brgs	DPI-198(1)		1992	62,000,000	27,776,000	17,212,955	10,563,045	34,224,000
Connecticut	1108(b)9	Imp of Hwy and Transit Projects	DPM-9(1),(2)	9	1994	10,100,000	4,524,800	783,070	3,741,730	5,575,200
TOTAL						79,400,000	35,571,200	21,266,425	14,304,775	43,828,800

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DC	1104(b)6	Primary Intermodal System	DPC-0006(001)		1995	6,800,000	3,046,400	0	3,046,400	3,753,600
DC	1106(b)10	Boundary Street Safety	DPU-0010(001)		1995	6,800,000	3,046,400	0	3,046,400	3,753,600
DC	1106(b)70	SE/SW & Anacostia Freeways Noise Barriers	DPU-0070(001)		1995	4,700,000	2,105,600	84,000	2,021,600	2,594,400
DC	1107(b)201	Bridge Deck at Catholic Univ	DPI-0201(001)	8	1994	200,000	89,600	89,600	0	110,400
DC	1107(b)98	Hybrid Fuel Cell	DPI-0098(001)	6	1994	3,600,000	1,612,800	0	1,612,800	1,987,200
TOTAL						22,100,000	9,900,800	173,600	9,727,200	12,199,200
Florida	1103(b)12	17th St Causeway, Tunnel/ Bridge, Ft Lauderdale	DPB-0012(1)		1997	13,600,000	6,092,800	0	6,092,800	7,507,200
Florida	1103(b)15	Dodge Island Bridge, Miami	DPB-0015(1)		1997	3,400,000	1,523,200	0	1,523,200	1,876,800
Florida	1104(b)25	Palm Beach: US 27 widening	DPC-0025(1)		1993	5,500,000	2,464,000	1,452,000	1,012,000	3,036,000
Florida	1104(b)30	Broward Co, Hallandale Bridge	DPC-0030(1)		1998	8,500,000	3,808,000	0	3,808,000	4,692,000
Florida	1106(a)28	Chattachouchee: Mosquito Creek Bridge	DPR-0028(1)		1997	2,400,000	1,075,200	0	1,075,200	1,324,800
Florida	1106(a)29	Upgrade SR-71, Rt 10-Rt 8	DPR-0029(1)		1997	2,900,000	1,299,200	407,638	891,562	1,600,800
Florida	1106(a)30	Upgrade SR-267	DPR-0030(1)		1996	4,700,000	2,105,600	0	2,105,600	2,594,400
Florida	1106(a)55	Brevard Co, Engineering Improvements SR-3	DPR-0055(1)		1997	160,000	71,680	13,600	58,080	88,320
Florida	1106(b)42	Sarasota: Interchange at US 301 & Univ Pky	DPR-0042(1)		1996	2,400,000	1,075,200	823,380	251,820	1,324,800
Florida	1107(b)196	Orlando, ROW acquisition & guideway construction	DPI-0196(1)		UNK	97,500,000	43,680,000	0	43,680,000	53,820,000
Florida	1107(b)28	Brevard Co, Bridge SR 3 over Barge Canal	DPI-0028(1)	7	1994	6,900,000	3,091,200	0	3,091,200	3,808,800
Florida	1107(b)43	Hillsborough: I-4 from Tampa to Co line	DPI-0043(1)		1995	24,500,000	10,976,000	4,577,732	6,398,268	13,524,000
Florida	1108(b)16	Jacksonville:I-295 Interchange and assess road	DPM-0016(1)		1997	7,100,000	3,180,800	0	3,180,800	3,919,200
TOTAL						179,560,000	80,442,800	7,274,350	73,168,530	99,117,120

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Georgia	1105(f)2	Upgrade East West Corridor along Route 72	DPS-0002(001)		UNK	5,588,000	2,503,424	433,047	2,070,377	3,084,576
Georgia	1106(b)4	Atlanta: Martin Luther King Drive	DPU-0004(001)		1995	800,000	358,400	0	358,400	441,600
Georgia	1106(b)72	Atlanta: I-20 Interchange at Lithonia Indust Blvd	DPU-0072(001)		1996	11,200,000	5,017,600	128,000	4,889,600	6,182,400
Georgia	1107(b)10	Atlanta: 1996 Olympics & IVHS traffic mgt sys	DPI-0010(001)	10	1994	58,100,000	26,028,800	20,165,066	5,863,734	32,071,200
Georgia	1107(b)202	Hwy improvements	DPT-0202(001)		UNK	27,000,000	12,096,000	0	12,096,000	14,904,000
Georgia	1108(b)11	Atlanta: Study of 5-Pts Intermodal	DPM-0011(001)		1995	2,400,000	1,075,200	1,075,200	0	1,324,800
Georgia	1108(b)48	Augusta: RR overpass at 15th and Greene Sts	DPM-0048(001)		UNK	5,900,000	2,643,200	158,400	2,484,800	3,256,800
TOTAL						110,988,000	49,722,624	21,959,713	27,762,911	61,265,376
Hawaii	1107(b)203	Hwy Improvements	UNK		1994	6,000,000	2,688,000	0	2,688,000	3,312,000
TOTAL						6,000,000	2,688,000	0	2,688,000	3,312,000

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Idaho	1104(b)31	Bannock & Caribou Co.'s Hwy Improvements	DPC-0031(001)		1997	10,100,000	4,524,800	0	4,524,800	5,575,200
Idaho	1104(b)31	Hannock & Caribou Co.'s Hwy Improvments	OPC -0031(001)		1997	10,100,000	4,524,800	80,000	4,444,800	5,575,200
Idaho	1107(b)187	Plummer: Reconstruct SH-5	DPI-0187(101)-(104)	6	1993	3,600,000	1,612,800	577,215	1,035,585	1,987,200
Idaho	1107(b)188	Lemhi Co: Reconstruct US-93	DPI-0188(001)-(004)	6	1993	25,600,000	11,468,800	0	11,468,800	14,131,200
Idaho	1107(b)189	St. Maries· FH 50	DPI-0189(001)	6	1994	3,400,000	1,523,200	0	1,523,200	1,876,800
Idaho	1107(b)190	Lewiston: New Road along FAU7344 in Bryden Canyon	DPI-0190(001)		1997	3,900,000	1,747,200	0	1,747,200	2,152,800
Idaho	1107(b)191	Bear Lake Co: US-89 from Montpelier to Geneva	DPI-0191(001)-(106)		1996	18,500,000	8,288,000	686,403	7,601,597	10,212,000
Idaho	1107(b)60	Bryden Co: Improve road WA State line to Lewiston	DPI-0060(001)		1997	5,300,000	2,374,400	8,000	2,366,400	2,925,600
TOTAL						80,500,000	36,064,000	1,351,618	34,712,382	44,436,000
Illinois	1104(b)19	Fox River Valley· 8 bridges	DPC-19(1),(2),(3),(4)		1999	8,300,000	3,718,400	1,345,971	2,372,429	4,581,600
Illinois	1104(b)4	East St Louis:Bridge Study	DPC-4(1)		1999	1,400,000	627,200	437,424	189,776	772,800
Illinois	1106(a)10	Study: Hwy 67 Alton to Jacksonville	DPR-10(1),(2)		1999	2,500,000	1,120,000	253,744	866,256	1,380,000
Illinois	1106(a)107	Construct Alton Bypass	DPR-107(1)		1995	4,400,000	1,971,200	0	1,971,200	2,428,800
Illinois	1106(a)11	Venice: Rehab McKinley Brg	DPR-11(1)		1995	5,900,000	2,643,200	0	2,643,200	3,256,800
Illinois	1106(a)31	East Louis to Carbondale Tollway Feasibility Study	DPR-31(1)		1999	320,000	143,360	143,360	0	176,640
Illinois	1106(a)32	Mt. Vernon: 34th St Ext	DPR-32(1)		1997	960,000	430,080	85,596	344,484	529,920
Illinois	1106(a)33	Feather Trail Road, Pulaski Co	DPR-33(1)		1993	1,100,000	492,800	85,285	407,515	607,200
Illinois	1106(a)34	Resurface SR 1: Cave-In-Rock to north of Omaha	DPR-34(1)		1999	1,800,000	806,400	0	806,400	993,600
Illinois	1106(a)35	Williamson Co:Upgrade Rt13	DPR-35(1)		1995	7,800,000	3,494,400	1,714,877	1,779,523	4,305,600
Illinois	1106(a)36	Saline Co: Improve Rt 13	DPR-36(1)		1997	4,000,000	1,792,000	0	1,792,000	2,208,000
Illinois	1106(a)65	W Central: Widen US 34	DPR-65(1)		1997	1,900,000	851,200	0	851,200	1,048,800
Illinois	1106(a)66	Bridge on US67 in NW IL	DPR-66(1)		1996	2,400,000	1,075,200	0	1,075,200	1,324,800

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Illinois	1106(a)9	East St Louis: Study Access Rd to Jeff Mem Park	DPR-9(1)		1999	240,000	107,520	0	107,520	132,480
Illinois	1106(b)13	Joliet: Houbolt Rd & I-80	DPU-13(1)		1993	1,000,000	448,000	264,000	184,000	552,000
Illinois	1106(b)14	Chicago: Various	DPU-14(1)		1994	3,700,000	1,657,600	55,718	1,601,882	2,042,400
Illinois	1106(b)15	Burnham:Improve Dolton Ave	DPU-15(1)		1996	1,900,000	851,200	108,488	742,712	1,048,800
Illinois	1106(b)16	Calument Park: Ashland Ave Bridge	DPU-16(1)		1997	2,100,000	940,800	196,844	743,956	1,159,200
Illinois	1106(b)17	Harvey: IL 1 Interchange	DPU-60(1)		1997	2,500,000	1,120,000	0	1,120,000	1,380,000
Illinois	1106(b)18	Markham: Sibley Blvd	DPU-18(1)		1997	3,500,000	1,568,000	0	1,568,000	1,932,000
Illinois	1106(b)19	Chicago:IL 1 at 155th St.	DPU-19(1)		1995	1,400,000	627,200	12,000	615,200	772,800
Illinois	1106(b)2	Metro East/St Louis MO Bridge Study	DPU-2(1)		1999	1,000,000	448,000	0	448,000	552,000
Illinois	1106(b)33	Springfield: 11th St Ext	DPU-33(1)		1997	8,300,000	3,718,400	442,505	3,275,895	4,581,600
Illinois	1106(b)5	Chicago: Handicap Access	DPU-5(1)		1994	2,400,000	1,075,200	0	1,075,200	1,324,800
Illinois	1106(b)52	Chicago: Eisenhower & Stevenson Connector	DPR-52(1)		1999	4,800,000	2,150,400	0	2,150,400	2,649,600
Illinois	1106(b)53	Chicago: Museum of Science and Industry	DPU-53(1)		1997	35,000,000	15,680,000	0	15,680,000	19,320,000
Illinois	1106(b)54	Chicago: Skyway Bridge	DPU-54(1)		1994	14,200,000	6,361,600	0	6,361,600	7,838,400
Illinois	1106(b)55	Chicago: Cermak Rd Bridge	DPU-55(1)		1996	9,200,000	4,121,600	482,857	3,638,743	5,078,400
Illinois	1106(b)56	Chicago:Roosevelt Rd and Bridge (56) Improv	DPU-56(3)		1994	14,200,000	6,361,600	216,920	6,144,680	7,838,400
Illinois	1106(b)56	Chicago:Roosevelt Rd and Bridge (56) Improv	DPU-56(1)		1994	11,800,000	5,286,400	995,746	4,290,654	6,513,600
Illinois	1106(b)57	Chicago: Cicero Ave	DPU-57(1)		1997	1,100,000	492,800	0	492,800	607,200
Illinois	1106(b)58	Chicago:183rd St Reconstr	DPU-58(1)		1997	1,500,000	672,000	0	672,000	828,000
Illinois	1106(b)59	Chicago:111th St Reconstr	DPU-59(1)(2)		1996	2,500,000	1,120,000	165,411	954,589	1,380,000
Illinois	1106(b)6	Chicago: Study for road	DPU-6(1)		1999	160,000	71,680	0	71,680	88,320
Illinois	1106(b)60	Chicago: 111th St Upgrade	DPU-17(1)		1995	2,500,000	1,120,000	17,600	1,102,400	1,380,000
Illinois	1106(b)61	Chicago: 111th St. Widen	DPU-61(1)		1996	4,700,000	2,105,600	325,175	1,780,425	2,594,400
Illinois	1107(b)102	IL 17: Splear Rd to Rt 1	DPI-104(1)		1995	1,800,000	806,400	0	806,400	993,600
Illinois	1107(b)103	Leroy: Replace US 150 Hemlock St to Gilmore St	DPI-17(1)		1999	1,000,000	448,000	0	448,000	552,000

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Illinois	1107(b)104	Ford Co:Replace 1.6 US 24	DPI-102(1)		1996	1,800,000	806,400	0	806,400	993,600
Illinois	1107(b)105	Watseka: US 24: Crescent City to IL 1	DPI-107(1)		1996	2,500,000	1,120,000	0	1,120,000	1,380,000
Illinois	1107(b)106	Replace Emington Spur Rd	DPI-106(1)		1996	650,000	291,200	0	291,200	358,800
Illinois	1107(b)107	Improve New Lenox Rd	DPI-105(1)		1997	2,500,000	1,120,000	16,000	1,104,000	1,380,000
Illinois	1107(b)108	Improve Shorewood Roadway	DPI-108(1)		1995	1,300,000	582,400	0	582,400	717,600
Illinois	1107(b)109	Chicago: Paint bridges	DPI-109(1)		1994	2,800,000	1,254,400	554,400	700,000	1,545,600
Illinois	1107(b)11	Chicago: Computer Mgt System	DPI-11(1)		1994	4,300,000	1,926,400	1,135,200	791,200	2,373,600
Illinois	1107(b)111	Chicago: 3R on Blvd	DPI-111(1)		1995	5,400,000	2,419,200	373,657	2,045,543	2,980,800
Illinois	1107(b)119	Calumet City: 156th St & 156th Place Reconsturct	DPI-119(1)		1996	1,300,000	582,400	492,550	89,850	717,600
Illinois	1107(b)120	Frankfort Twp:Improve Sts	DPI-120(1)		1994	1,000,000	448,000	34,778	413,222	552,000
Illinois	1107(b)121	Matteson: I-57 Bridge	DPI-121(001)		1997	3,600,000	1,612,800	150,834	1,461,966	1,987,200
Illinois	1107(b)122	US150/IL 1 Belgium to south of Westville	DPI-122(1)		1996	3,800,000	1,702,400	0	1,702,400	2,097,600
Illinois	1107(b)123	US 45: Savoy to Tolono	DPU-123(1)		1995	5,600,000	2,508,800	0	2,508,800	3,091,200
Illinois	1107(b)137	Improve Kennedy Expressway	DPI-137(1-15)		1993	175,000,000	78,400,000	158,678,843	(80,278,843)	96,600,000
Illinois	1107(b)15	Mokena: Wolf Road	DPI-15(1)		1995	1,400,000	627,200	0	627,200	772,800
Illinois	1107(b)16	Frankfort: Road Improvemts	DPI-16(1)		1997	1,300,000	582,400	0	582,400	717,600
Illinois	1107(b)17	Plainfield: EJ&E Viaduct	DPI-103(1)		1997	1,000,000	448,000	0	448,000	552,000
Illinois	1107(b)18	Romeoville: Replace 135th Street Bridge	DPI-18(1)		1997	5,900,000	2,643,200	0	2,643,200	3,256,800
Illinois	1107(b)32	Galina: EIS on US20	DPI-32(1)		1995	2,000,000	896,000	528,000	368,000	1,104,000
Illinois	1107(b)38	Mendon to West Point Rd: Hwy 316	DPI-38(1)		1997	5,000,000	2,240,000	1,694,212	920,000	2,760,000
Illinois	1107(b)66	Jacksonville Bypass	DPI-66(1)(2)		1996	15,800,000	7,078,400	527,153	6,551,247	8,721,600
Illinois	1107(b)95	DuQuoin Hwy Bridge	DPI-95(1)		1996	2,600,000	1,164,800	98,217	1,066,583	1,435,200
Illinois	1107(b)96	Tamarack Street Ext	DPI-96(1)		1994	600,000	268,800	43,567	225,233	331,200
Illinois	1108(h)50	I-255 Interchange	DPM-50(1) & (2)		1993	3,400,000	1,523,200	263,608	1,259,592	1,876,800
TOTAL						425,830,000	190,771,840	171,940,540	19,205,512	235,058,160

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Indiana	1104(b)35	Merrillville: Road & Overpass Construction	STP-N674(000) (0035001)		UNK	1,800,000	806,400	186,724	619,676	993,600
Indiana	1105(f)18	Industrial Corridor Safty	HDP-0018(001)		2000	9,500,000	4,256,000	713,772	3,542,228	5,244,000
Indiana	1105(f)26	Imporve Bloomington to Newberry segment	HDP-9222(001)		UNK	23,700,000	10,617,600	0	10,617,600	13,082,400
Indiana	1106(b)21	Lake Porter & LaPort Cos	DPU-0021(1)		UNK	1,000,000	448,000	0	448,000	552,000
Indiana	1106(b)22	ROW Acquisition - West Lake Corridor	DPU-0022(1)		UNK	1,000,000	448,000	195,640	252,360	552,000
Indiana	1106(b)23	Portage: Willow Creek Rd	N-N373		UNK	1,500,000	672,000	0	672,000	828,000
Indiana	1106(b)24	Hobart, Lake Station & New Chicago: Ridge Rd	STP-N626		UNK	4,300,000	1,926,400	0	1,926,400	2,373,600
Indiana	1106(b)62	Muncie: SR 67 Widening	UNK		1996	10,000,000	4,480,000	0	4,480,000	5,520,000
Indiana	1106(b)63	Columbus Entrance Project	HDPPS-9109(001)		1994	3,300,000	1,478,400	27,600	1,450,800	1,821,600
Indiana	1107(b)64	I-69 Evansville to Indy	HDP-9222(001)		UNK	3,800,000	1,702,400	0	1,702,400	2,097,600
Indiana	1107(b)97	East Chicago Marinal Access Road	HDPPE-9107(001)		UNK	8,500,000	3,808,000	0	3,808,000	4,692,000
Indiana	1108(b)37	Lafayette: RR Relocation	DPM-0037(1)	4	1994	24,300,000	10,886,400	3,927,279	6,959,121	13,413,600
Indiana	1108(b)45	Gary: US12/20 to Lake	DPM-0045(001)		UNK	2,200,000	985,600	80,000	905,600	1,214,400
TOTAL						94,900,000	42,515,200	5,131,015	37,384,185	52,384,800
Iowa	1105(f)22	Ave of the Saints, St. Paul to St. Louis	DPS-1022(010-(014)		1993	74,127,000	33,208,896	15,729,607	17,479,289	40,918,104
Iowa	1106(a)108	Mason City Bypass	DPR-0100(001)		1996	14,800,000	6,630,400	1,533,930	5,096,470	8,169,600
Iowa	1107(b)62	Freemont Co: Hwy 2	DPI-0062		2000	8,700,000	3,897,600	0	3,897,600	4,802,400
Iowa	1107(b)63	Valley View Corridor	DPI-0063(001)	5	1994	1,000,000	448,000	180,560	267,440	552,000
Iowa	1107(b)69	Hwy 63 Waterloo to New Hampton	DPI-0069(001)		1993	15,100,000	6,764,800	40,000	6,724,800	8,335,200
TOTAL						113,727,000	50,949,696	17,484,097	33,465,599	62,777,304

ISTEA DEMONSTRATION PROJECTS

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State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Kansas	1104(b)29	West Leavenworth Trafficway	DPC 0029(001)		1995	8,600,000	3,852,800	729,600	3,123,200	4,747,200
Kansas	1106(a)102	Lawrence: Eastern Parkway	DPR-0102(001)	5	1994	3,300,000	1,478,400	0	1,478,400	1,821,600
Kansas	1106(a)103	Oakland Expressway	DPR-0103(001)		1995	5,900,000	2,643,200	0	2,643,200	3,256,800
Kansas	1106(a)21	Lake Porter & LaPort Coe	DPR-0021(001)		1996	13,100,000	5,868,800	0	5,868,800	7,231,200
Kansas	1106(a)76	Overland Park: I-435	DPI-0076(001)		1995	4,100,000	1,836,800	0	1,836,800	2,263,200
Kansas	1107(b)044	Wichita-Interchange at Oliver St	DPI-0044(001)		1997	6,600,000	2,956,800	1,742,400	1,214,400	3,643,200
Kansas	1107(b)154	Widen US Rt 81	DPI-0154(001)		1996	7,000,000	3,136,000	1,147,232	1,988,768	3,864,000
Kansas	1107(b)155	Hutchinson Bypass	DPI-0155(001)		1997	24,400,000	10,931,200	2,303,000	8,628,200	13,468,800
TOTAL						73,000,000	32,704,000	5,922,232	26,781,768	40,296,000
Kentucky	1104(b)39	Louisville: Waterfront Development Roadway	CR 3001(106)		1995	4,700,000	2,105,600	240,000	1,865,600	2,594,400
Kentucky	1105(f)25	Cumberland Gap Tunnel	UNKNOWN		-	44,881,448	20,106,889	0	20,106,889	24,774,559
Kentucky	1106(a)89	Upgrade US 119, Pike Co	DPR-89(1)		1998	7,600,000	3,404,800	0	3,404,800	4,195,200
Kentucky	1106(a)98	South Central: Hwy 92 Study	DPR-98(1)		UNK	100,000	44,800	26,400	18,400	55,200
Kentucky	1106(a)99	Improve US 27, Jessamine	DPR-99(1)	11	1994	9,200,000	4,121,600	0	4,121,600	5,078,400
TOTAL						66,481,448	29,783,689	266,400	29,517,289	36,697,759

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State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Louisiana	1105(f)21	North-South Corridor State line to Shreveport	DPS-0002(001)		1997	29,600,000	13,260,800	0	13,260,800	16,339,200
Louisiana	1106(a)113	Replace Louisa Bridge	DPR-0113(001)		2000	9,500,000	4,256,000	64,000	4,192,000	5,244,000
Louisiana	1106(a)17	Lake Charles: Access to Rose Bluff Industrial Area	DPR-0017(001)		2000	4,100,000	1,836,800	0	1,836,800	2,263,200
Louisiana	1106(a)18	Ambassador Caffery Parkway	DPR-0018(001)(003)	7	1997	14,900,000	6,675,200	68,000	6,607,200	8,224,800
Louisiana	1106(a)56	Baker: New Road Constr	DPR-0056(001)		1996	1,700,000	761,600	80,000	681,600	938,400
Louisiana	1106(a)74	Bossier City: Study RR grade separations, US 71	DPR-0074(001)		UNK	160,000	71,680	0	71,680	88,320
Louisiana	1108(b)49	St Bernard Intermodal Facility	DPM-0049(001)	3	1994	10,200,000	4,569,600	0	4,569,600	5,630,400
TOTAL						70,160,000	31,431,680	212,000	31,219,680	38,728,320
Maine	1103(b)9	Donald B. Carter Mem Brdg	DPB-0009(001)		1994	32,100,000	14,380,800	4,551,853	9,828,947	17,719,200
Maine	1104(b)27	Brunswick-Topsham Bypass	DPB-0027(001)		1994	10,500,000	4,704,000	0	4,704,000	5,796,000
Maine	1104(b)44	Bath-Woolwich: Carlton Bridge	DPC-0044(001)		1996	10,000,000	4,480,000	2,640,000	1,840,000	5,520,000
Maine	1107(b)68	Portland-S. Portland Bridge	DPI-0068(001)-(008)		1993	134,500,000	60,256,000	3,159,440	57,096,560	74,244,000
TOTAL						187,100,000	83,820,800	10,351,293	73,469,507	103,279,200

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Maryland	1103(b)13	Woodrow Wilson Bridge Rehab	DPB-D013(001)-(003)	2	1992	29,600,000	13,260,800	3,247,536	10,013,264	16,339,200
Maryland	1104(b)20	Baltimore-Washington Pky	DPC-0022(001)		1972	16,300,000	7,302,400	0	7,302,400	8,997,600
Maryland	1106(b)31	Baltimore: "Project Vision"	DPU-0031(001)	9	1992	5,000,000	2,240,000	1,291,101	948,899	2,760,000
Maryland	1106(b)68	Baltimore Co: Improve US 1	DPU-0068(001)	5	1991	11,800,000	5,286,400	5,286,400	0	6,513,600
Maryland	1107(b)117	Baltimore Co: Improve I-695	DPI-0117(002)	5	1993	23,900,000	10,707,200	3,444,134	7,263,066	13,192,800
Maryland	1107(b)2	Hartford Co:Durham Rd Brg	DPI-0002(001)	7	1994	500,000	224,000	0	224,000	276,000
Maryland	1107(b)3	Hartfort Co:Furnace Rd Brg	DPI-0003(001)	7	1994	600,000	268,800	0	268,800	331,200
Maryland	1107(b)4	Hartford Co: S Hampton Rd Brg	DPI-0004(001)		1996	1,000,000	448,000	0	448,000	552,000
Maryland	1107(b)5	Hartford Co:Wheel Rd Brg	DPI-0005(001)	10	1994	1,000,000	448,000	0	448,000	552,000
Maryland	1107(b)6	Hartford Co:Watervale Brg	DPI-0006(001)	7	1994	1,100,000	492,800	0	492,800	607,200
Maryland	1107(b)7	Baltimore Co:Papermill Rd Brg	DPI-0007(001)		1995	5,300,000	2,374,400	0	2,374,400	2,925,600
TOTAL						96,100,000	43,052,800	13,269,171	29,783,629	53,047,200
Massachusetts	1104(b)22	Boston: Bike & Ped Path	DPC0022(001)		1995	1,200,000	537,600	0	537,600	662,400
Massachusetts	1106(b)30	Lawrence: I-495 Improve	DPU0030(001)		1998	4,700,000	2,105,600	0	2,105,600	2,594,400
TOTAL						5,900,000	2,643,200	0	2,643,200	3,256,800

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Michigan	1104(b)32	Vienna Twp: I-75/M57	0032(001)		1997	8,900,000	3,987,200	92,000	3,895,200	4,912,800
Michigan	1105(f)16	M059:MacComb to Howell Co	0016(001)-(003)		1993	29,600,000	13,260,800	3,714,400	9,546,400	16,339,200
Michigan	1106(a)43	Ottawa:US 131 St Joseph Co	UNK		1999	500,000	224,000	0	224,000	276,000
Michigan	1106(a)44	US-31 Berrien Co	0044(001),(002); 0045(001)		1991	17,400,000	7,795,200	2,889,591	4,905,609	9,604,800
Michigan	1106(a)45	US 131 Holladn, Ottawa Co	UNK		1999	1,300,000	582,400	0	582,400	717,600
Michigan	1106(a)58	Farmington Hills Corridor	UNK		1995	2,500,000	1,120,000	0	1,120,000	1,380,000
Michigan	1106(a)90	US 127 Jackson Co	0090(001)	7	1994	800,000	358,400	80,000	278,400	441,600
Michigan	1107(b)112	US 131 Cadillac to Manton to Traverse City	UNK		1999	4,200,000	1,881,600	0	1,881,600	2,318,400
Michigan	1107(b)33	Improve US 23 Areneck Co	0033(001),(002)	3	1994	4,700,000	2,105,600	576,000	1,529,600	2,594,400
Michigan	1107(b)47	Grand Rapids:Connect I-96/I-196	0047(001)		1997	6,900,000	3,091,200	1,821,600	1,269,600	3,808,800
Michigan	1107(b)53	Genesse Co, Mundy Twp, pavement	0053(001)		1992	160,000	71,680	42,240	29,440	88,320
Michigan	1107(b)54	Flint:5-lane Roadway	UNK		1995	500,000	224,000	0	224,000	276,000
Michigan	1107(b)55	Flint:5-lane Roadway	UNK		1995	900,000	403,200	0	403,200	496,800
Michigan	1107(b)56	Constr Bristol Road, Flint Co	0056(001)(002)		1993	3,100,000	1,388,800	818,400	570,400	1,711,200
Michigan	1107(b)89	Traverse City Bypass	UNK		1999	4,500,000	2,016,000	0	2,016,000	2,484,000
Michigan	1108(b)8	Road under Detroit City Airport runway	0025(001)		1996	4,300,000	1,926,400	616,000	1,310,400	2,373,600
Michigan	1108)b)25	Detroit: Access Rd Metro Airport	UNK		1993	33,800,000	15,142,400	0	15,142,400	18,657,600
TOTAL						124,060,000	55,578,880	10,650,231	44,928,649	68,481,120

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Minnesota	1103(b)10	Bloomington Ferry Brg, Shakopee	DPM-0010(001)		1990	22,000,000	9,856,000	5,434,614	4,421,386	12,144,000
Minnesota	1105(f)22	Ave of the Saints, St. Paul to St. Louis	DPS-M022(001)		1993	11,800,000	5,286,400	176,597	5,109,803	6,513,600
Minnesota	1106(a)22	Aurora-Hoyt Lakes/ Silver Bay	DPR-0022(001)		1988	9,500,000	4,256,000	1,878,886	2,377,114	5,244,000
Minnesota	1106(a)23	Richfield: 77th Street	DPR-0023(002)		1993	11,600,000	5,196,800	6,246,562	(1,049,762)	6,403,200
Minnesota	1106(a)88	Improve Mankato South Rt	DPR-0088(001)		1995	10,000,000	4,480,000	0	4,480,000	5,520,000
Minnesota	1106(a)91	Eden Praire/Cologne:Twin Cities Corridor	DPR-0091(001)		1995	8,700,000	3,897,600	320,000	3,577,600	4,802,400
Minnesota	1107(b)127	Hinckley: Truck Hwy 48 & County Rd 134	DPI-0127(001)		1993	2,000,000	896,000	643,170	252,830	1,104,000
Minnesota	1107(b)133	Hruck Hwy 37 & Hughes Rd	DPI-0133(001)		1993	500,000	224,000	8,000	216,000	276,000
Minnesota	1107(b)126	Cross-Range Expressway	DPI-0126(001)		1993	13,000,000	5,824,000	8,107,838	(2,283,838)	7,176,000
Minnesota	1107(b)128	Hwy 53 Twig to Hwy 37	DPI-0128(001)		1995	9,500,000	4,256,000	145,600	4,110,400	5,244,000
Minnesota	1107(b)129	Hwy 169 Grand Rapids to High City	DPI-0129(001)		1997	9,000,000	4,032,000	144,000	3,888,000	4,968,000
Minnesota	1107(b)130	Hwy 61 Schoeder to Grand Marais	DPI-0130(001)		1996	18,000,000	8,064,000	288,000	7,776,000	9,936,000
Minnesota	1107(b)158	Hennipin Co. C.S.A.H.18	DPI-0158(001)		1990	18,000,000	8,064,000	2,746,622	5,317,378	9,936,000
Minnesota	1107(b)159	Nicollet Co: C.A.S.H.41	DPI-0159(001)		1995	3,000,000	1,344,000	196,346	1,147,654	1,656,000
Minnesota	1107(b)160	St. Cloud: Truck Hwy 15 Bridge	DPI-0160(001)		1993	3,240,000	1,451,520	2,708,192	(1,256,672)	1,788,480
Minnesota	1107(b)161	MN Safety Initiative Program	DPI-0161(001)		1993	3,000,000	1,344,000	467,679	876,321	1,656,000
Minnesota	1107(b)81	Brooklyn Park: Hwy 610	DPI-0081(001)		1996	36,000,000	16,128,000	590,072	15,537,928	19,872,000
Minnesota	1108(b)40	Minneapolis Intermodal Urban connection project	DPM-0040(001)		1988	19,900,000	8,915,200	0	8,915,200	10,984,800
TOTAL						208,740,000	93,515,520	30,102,178	63,413,342	115,224,480

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Mississippi	1104(b)28	Rankin Co: East-Metro Center Access Road	DPC-28(1)	12	1994	4,600,000	2,060,800	356,646	1,704,154	2,539,200
Mississippi	1105(f)2	East-West Corridor Rt 72	DPS-M002(1)	3	1994	5,080,000	2,275,840	0	2,275,840	2,804,160
Mississippi	1106(a)24	Franklin/Lincoln Co:Hwy 84	DPR-24(1)	10	1994	9,500,000	4,256,000	3,918,551	337,449	5,244,000
Mississippi	1106(a)25	US-48 from Co line of Pike & Walthalm Co to Lamar Co	DPR-25(1)	9	1995	400,000	179,200	179,200	73,600	220,800
Mississippi	1106(a)26	Natchez: Upgrade Hwy 61	DPR-26(1)	11	1995	350,000	156,800	0	156,800	193,200
Mississippi	1106(a)27	Hwy 84 Brookhaven to Collins	DPR-27(1)	1	1996	2,100,000	940,800	940,400	386,400	1,159,200
Mississippi	1107(b)85	Pascagoula: Improve US 90	DPI-85(1)	10	1996	4,300,000	1,926,400	333,386	1,593,014	2,373,600
Mississippi	1108(b)34	1-20 at Pirate Cove Rd	DPM-34(1)	12	1995	3,400,000	1,523,200	263,608	1,259,592	1,876,800
Mississippi	1108(b)35	Jackson Airport Connectors	DPM-35(1)	5	1996	3,100,000	1,388,800	0	1,388,800	1,711,200
TOTAL						32,830,000	14,707,840	5,991,791	9,175,649	18,122,160

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Missouri	1104(b)16	St Louis: Study I-255	DPC-0016(001)		UNK	100,000	44,800	7,752	37,048	55,200
Missouri	1104(b)5	Lindbergh Blvd and I-70 St Louis Lambert Airport	DPC-0005(001)		UNK	14,800,000	6,630,400	0	6,630,400	8,169,600
Missouri	1105(f)22	Improve Ave of Saints St Paul to St Louis	DPS-M022(001)		1994	32,073,000	14,368,704	0	14,368,704	17,704,296
Missouri	1105(f)3	Improve North-South Corridor along Hwy 71	DPS-0003(001)		1995	3,600,000	1,612,800	0	1,612,800	1,987,200
Missouri	1106(a)101	Adams Dairy Pky, Blue Springs	DPR-0101(001)		1994	1,500,000	672,000	672,000	(3,702)	828,000
Missouri	1106(a)104	Improve Hwy 63 in North part of the State	DPR-0104(001)-(103)		1994	5,900,000	2,643,200	2,657,763	(14,563)	3,256,800
Missouri	1106(a)112	Howell & Texas Co., Hwy 63	DPR-0112(001)		1994	3,600,000	1,612,800	950,400	662,400	1,987,200
Missouri	1106(a)15	Improve Hwy 60 in New Madrid, Stoddard, Carter & Butler Cos	DPR-0015(001)-(008)		1994	21,700,000	9,721,600	10,679,920	(958,320)	11,978,400
Missouri	1106(a)16	Southern: Improve Rt 65	DPR-0016(001)		1994	14,100,000	6,316,800	4,112,000	2,204,800	7,783,200
Missouri	1107(b)40	Jefferson Co: Widen I-55	DPI-0040(001)		1994	5,100,000	2,284,800	0	2,284,800	2,815,200
Missouri	1107(b)41	Jefferson Co: Upgrade Hwy 21	DPI-0041(001)		1994	5,100,000	2,284,400	0	2,284,800	2,815,200
Missouri	1107(b)42	St Louis: Construct belt-connecting I-55 & I-44	DPI-0042(001)		1994	7,600,000	3,404,800	0	3,404,800	4,195,200
Missouri	1108(b)10	St Louis: Rehab Eads Brdg	DPM-0010(001)(002)		UNK	8,900,000	3,987,200	2,349,520	1,637,680	4,912,800
Missouri	1108(b)27	St Louis: Construct multi-modal transport facility	DPM-0027(001)		1995	5,900,000	2,643,200	0	2,643,200	3,256,800
Missouri	1108(b)41	Improve Bruce Watkins road	DPM-0041(001)		1994	1,400,000	627,200	0	627,200	772,800
Missouri	1108(b)42	Kansas City: South River-front Expressway	DPM-0042(001)		2002	12,700,000	5,689,600	0	5,689,600	7,010,400
TOTAL						144,073,000	64,544,704	21,429,355	43,111,647	79,520,296

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Montana	1107(b)0194	Billings: Construct Shilo I-90	DPI-00194(001)		1996	11,000,000	4,928,000	568,388	4,359,612	6,072,000
Montana	1107(b)0195	Missoula: Construct Missoula Airport/I-90	DPI-00195(001)		1997	7,000,000	3,136,000	542,127	2,593,873	3,864,000
TOTAL						18,000,000	8,064,000	1,110,515	6,953,485	9,936,000
Nebraska	1105(f)17	Improve Heartland Expressway	DPS-N007(001)		1996	14,800,000	6,630,400	0	6,630,400	8,169,600
Nebraska	1105(f)7	Study of expressway-Rapid City to Scotts Bluff	DPS-N007(001)		1995	640,000	286,720	411,200	(124,480)	353,280
Nebraska	1106(b)39	Omaha: Improve US6	DUP-39(1)		1997	5,200,000	2,329,600	0	2,329,600	2,870,400
Nebraska	1107(b)50	Springfield:Missouri River Bridge Construction	F-14-4-(104)		1996	4,700,000	2,105,600	0	2,105,600	2,594,400
TOTAL						25,340,000	11,352,320	411,200	10,941,120	13,987,680
Nevada	1104(b)9	Las Vegas: Spaghetti Bowl	DPC-0009(001)	7	1995	45,000,000	20,160,000	403,891	19,756,109	24,840,000
Nevada	1105(f)20	Improve I-15 & I-40 in CA, AZ, NV	DPS-N020(001)	11	1995	10,500,000	4,704,000	3,616,000	1,088,000	5,796,000
Nevada	1107(b)90	Elko Co: Lamoille Hwy	DPI-90(001)&(002)	4	1994	2,400,000	1,075,200	795,796	279,404	1,324,800
Nevada	1107(b)91	Reno: US 395 widening	3952(021)		1993	14,800,000	6,630,400	3,907,200	2,723,200	8,169,600
Nevada	1107(b)92	Carson City Bypass	DPI-0092(1)	4	1994	7,600,000	3,404,800	216,000	3,188,800	4,195,200
Nevada	1108(b)17	Las Vegas beltway	DPM-0017(001)		1993	3,800,000	1,702,400	0	1,702,400	2,097,600
TOTAL						84,100,000	37,676,800	8,938,887	28,737,913	46,423,200

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New Jersey	1101(b)7	Ocean City-Longport Bridge	DPB-0007(001)	6	1996	18,400,000	8,243,200	0	8,243,200	10,156,800
New Jersey	1106(b)25	Passaic Co: Rt-21 Construction	DPU-0025(001)	1	1994	98,800,000	44,262,400	18,039,400	26,223,000	54,537,600
New Jersey	1106(b)26	Raise 14 Brdgs over Molly Ann's Brook	DPU-0026(001)	9	1994	9,500,000	4,256,000	1,470,700	2,785,300	5,244,000
New Jersey	1106(b)28	Newark: Ramps to I-78	DPU-0028(001)	12	1997	7,200,000	3,225,600	0	3,225,600	3,974,400
New Jersey	1106(b)29	Newark: parking facility	DPU-0029(001)	8	1994	4,900,000	2,195,200	548,000	1,647,200	2,704,800
New Jersey	1106(b)34	Middlesex: Widen Rt 1	DPU-0034(001)	10	1994	7,400,000	3,315,200	367,000	2,948,200	4,084,800
New Jersey	1106(b)35	Perth Amboy & Woodbridge Twps: Study river crossings	DPU-0035(001)	8	1994	2,500,000	1,120,000	346,969	773,031	1,380,000
New Jersey	1106(b)37	Parsippany, Troy Hills: improve I-280	DPU-0037(001)	1	1996	3,100,000	1,388,800	432,704	956,096	1,711,200
New Jersey	1106(b)64	Paramus:Rt17/4 Interchange	DPU-0064(001)	3	1997	5,700,000	2,553,600	12,134	2,541,466	3,146,400
New Jersey	1106(b)65	Hackensack Ave/Kinderkamack Road Bridges	DPU-0065(001)	10	1994	5,700,000	2,553,600	0	2,553,600	3,146,400
New Jersey	1106(b)69	Camden: Renovate South Jersey Port Corp Becketts St Terminal	DPU-0069(001)		1993	8,300,000	3,718,400	3,718,400	0	4,581,600
New Jersey	1107(b)125	Paulsboro: New bridge	DPI-0125(001)	6	1996	2,700,000	1,209,600	0	1,209,600	1,490,400
New Jersey	1107(b)73	NJ Transit Br Acquisition	DPI-0073(001)	5	1998	14,800,000	6,630,400	3,131,301	3,499,099	8,169,600
New Jersey	1107(b)74	Widen Rt 21 - Newark	DPI-0074(001)	8	1995	13,900,000	6,227,200	0	6,227,200	7,672,800
TOTAL						202,900,000	90,899,200	28,066,608	62,832,592	112,000,800
New Mexico	1106(a)93	Clayton: Raton-Clayton Road	DPR-0093(001)	9	1994	9,300,000	4,166,400	279,251	3,887,149	5,133,600
New Mexico	1106(a)94	Jicarilla Apache State Rd	1352(009)(010)(012)(712)(36		1993	1,500,000	672,000	396,000	276,000	828,000
TOTAL						10,800,000	4,838,400	675,251	4,163,149	5,961,600

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
New York	1103(b)14	Macomb Dam, Manhattan, Queensboro, Williamsburg, and Brooklyn Bridges	OM/ACDM-0372(300)		1994	74,000,000	33,152,000	33,152,000	0	40,848,000
New York	1104(b)07	Buffalo: Peace Bridge truck inspection facility	DPC-7(1)		UNK	19,500,000	8,736,000	289,500	8,446,500	10,764,000
New York	1104(b)13	Babylon:Construct turning lanes, signs, signals	UNK	10	1994	2,100,000	940,800	0	940,800	1,159,200
New York	1104(b)18	Long Island: Van Wyck Expressway	UNK		UNK	3,600,000	1,612,800	0	1,612,800	1,987,200
New York	1104(b)38	New York: Williamsburg to Holland Tunnel Bypass	DPC-0038(001)		UNK	3,600,000	1,612,800	0	1,612,800	1,987,200
New York	1105(f)30	Rt 219 Springville to Ellicottville	DPS-30(1)		UNK	9,500,000	4,256,000	48,000	4,208,000	5,244,000
New York	1106(a)3	Utica North/South Arterial	3(001)(300)		1993	9,900,000	4,435,200	2,613,600	1,821,600	5,464,800
New York	1106(a)4	Oneida: Upgrade hwy	365-0004(001)		1995	8,000,000	3,584,000	2,000,000	1,584,000	4,416,000
New York	1106(a)71	Chatauqua Co: Expressway lanes	DPR-2(931)&71001		1993	17,000,000	7,616,000	4,488,000	3,128,000	9,384,000
New York	1106(a)70	Wayne Co: Improve Rt 104	UNK		1995	6,400,000	2,867,200	0	2,867,200	3,532,800
New York	1106(a)9	New York: Miller Hwy	DPU-9259(001)		1997	15,600,000	6,988,800	4,213,816	2,774,984	8,611,200
New York	1106(b)11	Buffalo: Scajaquada Expressway Study	DPU-11(1)		UNK	240,000	107,520	40,000	67,520	132,480
New York	1106(b)12	Buffalo: NY State Thruway	DPU/ACDPU-12(1)		UNK	240,000	107,520	63,360	44,160	132,480
New York	1106(b)38	Queens: 39th St Bridge	DPU/AL-38(001)		1993	10,400,000	4,659,200	806,329	3,852,871	5,740,800
New York	1106(b)40	Suffolk Co/Long Is: SR-112	ACDPV-0005(450)	2	1994	3,400,000	1,523,200	0	1,523,200	1,876,800
New York	1106(b)48	Long Is:Southern State Pkwy	UNK		1996	4,600,000	2,060,800	0	2,060,800	2,539,200
New York	1106(b)49	Schenectady:Exit 23 Bridge	UNK	8	1994	5,700,000	2,553,600	0	2,553,600	3,146,400
New York	1106(b)67	Staten Island: Preserve Rail Corridor	DPU-0067(001)		UNK	10,700,000	4,793,600	0	4,793,600	5,906,400
New York	1106(b)73	Buffalo: Southtowns Connectnr	DPU-0073(001)		UNK	8,500,000	3,808,000	48,000	3,760,000	4,692,000
New York	1107(b)162	New York:Hell Gate Viaduct	-		-	55,000,000	24,640,000	0	24,640,000	30,360,000
New York	1107(b)163	New York: Ferry landing	DPI-0163(001)		UNK	2,000,000	896,000	0	896,000	1,104,000
New York	1107(b)164	New York: Foley Square	DPI-0164(001)		UNK	5,250,000	2,352,000	0	2,352,000	2,898,000
New York	1107(b)165	New York: FDR Drive	DPI-0165(001)		1995	10,000,000	4,480,000	0	4,480,000	5,520,000

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/96)	New Authorization 95-97
New York	1107(b)166	Improve Corning Bypass	DPI-2(931)		1993	11,000,000	4,928,000	0	4,928,000	6,072,000
New York	1107(b)191	Corning Bypass	DPI-2(931)		1993	2,400,000	1,075,200	0	1,075,200	1,324,800
New York	1107(b)200	Binghamton: Study rehab of S Washington St Brg	UNK		1994	500,000	224,000	0	224,000	276,000
New York	1107(b)48	Suffolk Co: Black topping	UNK	3	1994	2,000,000	896,000	0	896,000	1,104,000
New York	1107(b)49	Suffolk Co: Evaluate composting/recycling	UNK	3	1994	400,000	179,200	0	179,200	220,800
New York	1107(b)59	Amherst & Erie Cos: Rt263 & Rt78	DPI-0059(1)		1996	7,600,000	3,404,800	90,000	3,314,800	4,195,200
New York	1107(b)67	Staten Is: Preserve Rail Corridor	DPI-0067(001)(NA)	10	1991	6,500,000	2,912,000	2,912,000	0	3,588,000
New York	1108(b)12	Buffalo River/Gateway Tunnel	UNK		UNK	20,200,000	9,049,600	0	9,049,600	11,150,400
New York	1108(b)28	Orange & Rockland: Park & Ride	DPM-0028(001)		1995	4,700,000	2,105,600	0	2,105,600	2,594,400
New York	1108(b)32	Intermodal Facility at Mt Vernon Rail Station	DPM-0032(001)		UNK	7,100,000	3,180,800	0	3,180,800	3,919,200
New York	1108(b)33	Orange Co: Stuart Airport Interchange Project	DPM-0031(001)		1997	15,700,000	7,033,600	2,992,000	4,041,600	8,666,400
TOTAL						361,330,000	162,771,840	53,756,605	109,015,235	200,558,160
North Carolina	1105(f)13	New Hwy-Rocky Mt to Elizabeth	DPI-0199(002)	2	1994	17,800,000	7,976,400	0	7,976,400	9,825,600
North Carolina	1106(a)39	Asheville: Improve US 19	DPR-0039(001)		1993	11,100,000	4,972,800	1,000,000	3,972,800	6,127,200
North Carolina	1106(a)100	U-2519/X-2 Hwys Cumberland	DPR-0100(001)		1996	15,900,000	7,123,200	1,272,000	5,851,200	8,776,800
North Carolina	1106(a)2	Boger City: Boger City to NC-127	DPR-0002(001)		1992	14,200,000	6,361,600	1,713,603	4,647,997	7,838,400
North Carolina	1106(a)46	I-85 interchange improvements	IR-85-4(69)109		1993	1,700,000	761,600	0	761,600	938,400
North Carolina	1106(a)72	Bonner Bridge	DPI-0072(001)		1992	3,000,000	1,344,000	792,000	552,000	1,656,000
North Carolina	1106(a)73	Link I-95/I-40 near Wilson and Goldboro	F-83-2(26)		1996	8,900,000	3,987,200	0	3,987,200	4,912,800
North Carolina	1107(b)113	Durham Co: Rt 147	0113(001)(002)		1990	38,300,000	17,158,400	15,514,906	1,643,494	21,141,600
North Carolina	1107(b)199	New Hwy-Rocky Mt to Elizabeth	DPI-0199(001)-(005)	2	1994	30,000,000	13,440,000	2,437,424	11,002,576	16,560,000
North Carolina	1107(b)75	Chatham & Wake Cos: US 64	0075(001)(002)		1993	5,300,000	2,374,400	1,530,502	843,898	2,925,600
TOTAL						146,200,000	65,497,600	24,260,435	41,237,165	80,702,400

ISTEA DEMONSTRATION PROJECTS

C:ISTEA16F
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State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
North Dakota	1104(b)12	Bypass around Lincoln State Park	DPC-0012(001)	11	1994	1,100,000	492,800	80,000	412,800	607,200
North Dakota	1107(b)167	Nelson Co: US Hwy 2 & FAS 3220	DPI-0167(001)	6	1992	8,500,000	3,808,000	3,023,264	784,736	4,692,000
North Dakota	1107(b)168	Widening & surfacing-Stutsman County	DPI-0168(001)	6	1992	4,000,000	1,792,000	2,466,852	(674,852)	2,208,000
North Dakota	1107(b)169	Steele & Griggs Cos: Grading & surfacing	DPI-0169(001)	7	1993	2,900,000	1,299,200	650,952	648,248	1,600,800
North Dakota	1107(b)170	Grand Forks Co: Surfacing	DPI-0170(001)	2	1992	2,600,000	1,164,800	1,600,800	(436,000)	1,435,200
North Dakota	1107(b)171	Grading & surfacing-Richland Co.	DPI-0171(001)	3	1994	600,000	268,800	9,600	259,200	331,200
North Dakota	1107(b)172	Ward & McHenry Cos: Grading & surfacing	DPI-0172(001)	4	1993	4,500,000	2,016,000	1,282,656	733,344	2,484,000
North Dakota	1107(b)173	Grading & surfacing-Bottineau County	DPI-0173(001)	4	1994	2,400,000	1,075,200	40,000	1,035,200	1,324,800
North Dakota	1107(b)174	McKenzie Co: Grading & surfacing	DPI-0174(001)	2	1993	2,300,000	1,030,400	1,982,408	(952,008)	1,269,600
North Dakota	1107(b)175	Wells Co: Grading & surfacing	DPI-0175(001)	4	1993	2,500,000	1,120,000	421,776	698,224	1,300,000
North Dakota	1107(b)176	Traill Co: Grading & surfacing	DPI-0176(001)	6	1992	2,800,000	1,254,400	2,098,864	(844,464)	1,545,600
North Dakota	1107(b)177	Grading & surfacing-Eddy Co.	DPI-0177(001)	2	1993	2,500,000	1,120,000	1,698,568	(578,568)	1,380,000
North Dakota	1107(b)178	Grading & surfacing-Renville and Ward Counties	DPI-0178(001)	3	1994	900,000	403,200	28,000	375,200	496,800
North Dakota	1107(b)179	Morton Co: Grading & surfacing	DPI-0179(001)	4	1992	3,100,000	1,388,800	1,047,120	341,680	1,711,200
North Dakota	1107(b)180	Walsh Co: Surfacing	DPI-0180(001)	7	1993	2,500,000	1,120,000	656,312	463,688	1,380,000
North Dakota	1107(b)181	Dickey Co: Grading & surfacing	DPI-0181(001)	5	1992	4,000,000	1,792,000	1,580,360	211,640	2,208,000
North Dakota	1107(b)182	Burke Co: Grading & surfacing	DPI-0182(001)	7	1992	4,400,000	1,971,200	1,391,088	580,112	2,428,800
North Dakota	1107(b)183	Lincoln State Park-Morton Co.	DPI-0183(001)	11	1994	3,200,000	1,433,600	1,900,000	(466,400)	1,766,400
North Dakota	1107(b)184	Rolette Co: Grading & surfacing	DPI-0184(001)	6	1993	1,900,000	851,200	1,900,000	(1,048,800)	1,048,800
North Dakota	1107(b)185	Oliver Co: Grading & surfacing	DPI-0185(001)	5	1993	2,900,000	1,299,200	847,608	451,592	1,600,800
North Dakota	1107(b)186	Williams Co: Grading & surfacing	DPI-0186(001)	5	1993	2,500,000	1,120,000	408,552	711,448	1,380,000
North Dakota	1107(b)36	State-wide off-sys brdg mgt.sys	DPI-0036(001)	4	1992	8,900,000	3,987,200	775,000	3,212,200	4,912,800
TOTAL						71,000,000	31,808,000	25,889,780	5,918,220	39,192,000

ISTEA DEMONSTRATION PROJECTS

C:ISTEA16P
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State	Public law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
N Hampshire(1104 A)	1104(b)8	Nashua River Bridge	NRBD-5315(021)		1996	1,200,000	537,600	0	537,600	662,400
N. Hampshire(10029 A)	1106(a)38	Ledyard Bridge reconstruction	DPR-BRM-0038(001)		1995	7,800,000	3,494,400	0	3,494,400	4,305,600
N. Hampshire(11124 A)	1106(a)48	Wetlands Mitigation SR-101/51	NHS-DPR-0048(001)		1994	10,000,000	4,480,000	2,640,000	1,840,000	5,520,000
N. Hampshire(11512)	1106(a)47	Manchester Airport Rd. Impr.	DPR-F-0047(001)		P.E.	4,000,000	1,792,000	0	1,792,000	2,208,000
N Hampshire(11501)	1106(a)17	Repl. of Winchester Bridge	DPR-0037(001)		1996	800,000	358,400	160,000	198,400	441,600
N. Hampshire(11712)	1107(b)152	Study corridor Rte. 16	DPI-0152(002)		P.E.	2,000,000	896,000	505,667	390,333	1,104,000
N. Hampshire(11119 A)	1107(b)151	Congreation relief No. Conway	HBPPE-9117(001)		1996	6,300,000	2,822,400	0	2,822,400	3,477,600
TOTAL						32,100,000	14,380,800	3,305,667	11,075,133	17,719,200

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Ohio	1103(b)8	Maumee River Brg/Tunnel Study	DPB-0008(1)		UNK	1,000,000	448,000	264,000	184,000	552,000
Ohio	1104(b)21	Toledo - study 6 corridors	DPC-0021(1)		UNK	240,000	107,520	0	107,520	132,480
Ohio	1104(b)41	Dayton-Bicycle/ped facility	DPC-0041(1)		1995	3,000,000	1,344,000	0	1,344,000	1,656,000
Ohio	1105(f)19	Study US-24, Ft. Wayne to Toledo	DPS-0019(1)		UNK	320,000	143,360	84,480	58,880	176,640
Ohio	1106(a)1	Improvements Short Creek Hwy	DPR-0001(1)		UNK	2,500,000	1,120,000	0	1,120,000	1,380,000
Ohio	1106(a)19	Rt. 68 Bypass - Clark, Champaign and Logan Counties	DPR-0019(1)		1997	15,800,000	7,078,400	0	7,078,400	8,721,600
Ohio	1106(a)40	Belmont St. Bridge replacement	DPR-0040(1)		1997	1,200,000	537,600	0	537,600	662,400
Ohio	1106(a)41	Bridge St. Bridge replacement	DPR-0041(1)		1997	1,200,000	537,600	0	537,600	662,400
Ohio	1106(a)42	Niles: Belmont St. Bridge	DPR-0042(1)		1996	2,500,000	1,120,000	660,000	460,000	1,380,000
Ohio	1106(a)64	Const. interchgs rt.615 at I-90	DPR-0064(1)		1996	4,700,000	2,105,600	0	2,105,600	2,594,400
Ohio	1106(a)86	Rt. 18 Bypass Study	DPR-0086(1)		UNK	400,000	179,200	0	179,200	220,800
Ohio	1106(a)87	US Rt. 250 Bypass Study	DPR-0087(1)		UNK	400,000	179,200	0	179,200	220,800
Ohio	1106(a)92	Rt 30 Ext: E. Canton/Minerva	DPR-0092(1)		UNK	5,300,000	2,374,400	1,399,200	975,200	2,925,600
Ohio	1106(b)20	Center St. Brige replacement	DPU-0020(1)		1997	12,200,000	5,465,600	0	5,465,600	6,734,400
Ohio	1107(b)1	Cadiz to Clairsville - US 250	DPI-0001(1)		1996	20,000,000	8,960,000	0	8,960,000	11,040,000
Ohio	1107(b)197	Design & const. I-280 Bridge	DPI-0197(1)		UNK	37,000,000	16,576,000	0	16,576,000	20,424,000
Ohio	1107(b)65	US 68 Ohio River Bridge	DPI-0065(1)		1997	15,500,000	6,944,000	0	6,944,000	8,556,000
Ohio	1107(b)70	Brook Park: Access Rd.	DPI-0070(1)		UNK	14,200,000	6,361,600	0	6,361,600	7,838,400
Ohio	1107(b)78	Akron: Kelly Ave. extension	DPI-0078(1)		UNK	9,500,000	4,256,000	280,000	3,976,000	5,244,000
Ohio	1107(b)93	I-270 No. Outerbelt widening	DPI-0093(1)		1996	10,200,000	4,569,600	0	4,569,600	5,630,400
Ohio	1107(b)99	Rehab. Bridge on US 224	DPI-0099(1)		1996	1,000,000	448,000	0	448,000	552,000
TOTAL						158,160,000	70,855,680	2,687,680	68,168,000	87,304,320

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Oklahoma	1103(b)1	Bridge on Rt.59, Delaware	DPB-0001(001)	6	1997	9,700,000	4,345,600	0	4,345,600	5,354,400
Oklahoma	1106(a)5	Southern-Widening of US 70	DPR-0005(001)	3	1997	240,000	107,520	0	107,520	132,480
Oklahoma	1106(a)6	Bridge constr-Pennington Creek	DPR-0006(002)	4	1994	1,000,000	448,000	9,600	438,400	552,000
Oklahoma	1107(b)009	Tulsa-Upgrade US 75	DPI-0009(001)-(002)	5	1997	14,000,000	6,272,000	80,000	6,192,000	7,728,000
Oklahoma	1107(b)204	Various Hwy Improvements	DPI-0204(001)-(004)	3	1993	59,000,000	26,432,000	14,030,497	12,401,503	32,568,000
Oklahoma	1107(b)8	Southern: US 70	DPIY-0204(001)	3	1993	2,100,000	940,800	0	940,800	1,159,200
Oklahoma	1108(b)7	Ardmore: Study upgrading SR 53	DPM-0007(001)		1993	2,500,000	1,120,000	0	1,120,000	1,380,000
TOTAL						88,540,000	39,665,920	14,120,097	25,545,823	48,874,080
Oregon	1103(b)2	Ferry St. Bridge, Eugene	DPB-002(001)		UNK	23,700,000	10,617,600	0	10,617,600	13,082,400
Oregon	1107(b)57	Construct Salem Bypass	DPI-0057(001)		1992	6,000,000	2,688,000	0	2,688,000	3,312,000
Oregon	1108(b)14	US 26: Add lanes & light rail	DPM-0014(001)	12	1992	14,200,000	6,361,600	0	6,361,600	7,838,400
Oregon	1108(b)43	Columba Slough Bridge	DPM-0043(001)	1	1996	2,100,000	940,800	0	940,800	1,159,200
TOTAL						46,000,000	20,608,000	0	20,608,000	25,392,000
Pennsylvania	1103(b)3	Aliquippa Ambridge Bridge Beaver County	0003(001)		1996	25,000,000	11,200,000	0	11,200,000	13,800,000
Pennsylvania	1104(b)2	Pratt Terminal Bridge, I-95, Philadelphia	0001(001)		1999	34,500,000	15,456,000	0	15,456,000	19,044,000
Pennsylvania	1104(b)26	Improve Towanda Township	0026(001)		1995	8,800,000	3,942,400	0	3,942,400	4,857,600
Pennsylvania	1105(f)1	US 220 High Priority Corridor	0001(001)		1995	50,700,000	22,713,600	0	22,713,600	27,986,400
Pennsylvania	1105(f)6	US 220-Bald Eagle to US 322	0006(001)		1996	148,000,000	66,304,000	1,622,273	64,681,727	81,696,000
Pennsylvania	1106(a)106	US 222 reconstr, Berks Co.	0106(001)		1996	6,600,000	2,956,800	0	2,956,800	3,643,200
Pennsylvania	1106(a)115	Latrobe- Reconstr Ligoner St	0115(001)	12	1992	800,000	358,400	358,000	400	441,600
Pennsylvania	1106(a)116	Carroltown/DuBois: US 219	0116(001)		1998	4,000,000	1,792,000	306,671	1,485,329	2,208,000
Pennsylvania	1106(a)117	Robinson Township: Town Center	0117(001)		1996	5,000,000	2,240,000	0	2,240,000	2,760,000
Pennsylvania	1106(a)20	Aliquippa: Various 3-R	0020(001)(002)	6	1993	12,800,000	5,734,400	1,688,222	4,046,178	7,065,600
Pennsylvania	1106(a)52	Blair, Fulton, and Huntington Co.	0052(001)		1997	19,700,000	8,825,600	360,000	8,465,600	10,874,400
Pennsylvania	1106(a)67	Mon-Fayette X-Way	0067(001)		1995	14,000,000	6,272,000	0	6,272,000	7,728,000
Pennsylvania	1106(a)68	Dauphin Borough to Speeceville	0068(001)		1995	12,000,000	5,376,000	310,800	5,065,200	6,624,000
Pennsylvania	1106(a)7	US 219 Johnsonburg Bypass	0007(001)		1996	14,000,000	6,272,000	484,065	5,787,935	7,728,000

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Pennsylvania	1106(a)75	Climbing Lane Demo - US 15	0075(001)		1996	13,800,000	6,182,400	0	6,182,400	7,617,600
Pennsylvania	1106(a)8	US 219 from I-80 to NY	0008(001)-(016)	6	1992	26,000,000	11,648,000	6,892,417	4,755,583	14,352,000
Pennsylvania	1106(a)81	US Rt. 219 Meyersdale Bypass	0081(001)		1995	48,000,000	21,504,000	2,702,471	18,801,529	26,496,000
Pennsylvania	1106(a)82	US Rt 22 Monroeville to Ebansburg	0082(001)-(003)	5	1993	30,300,000	13,574,400	11,862,216	1,712,184	16,725,600
Pennsylvania	1106(a)83	Laurel Valley Expressway	0080(001)		UNK	5,000,000	2,240,000	1,075,200	1,164,800	2,760,000
Pennsylvania	1106(a)96	US Rt. 222, Lehigh Co.	0096(001)		1996	1,500,000	672,000	0	672,000	828,000
Pennsylvania	1106(a)97	Rt. 33, Northhampton Co.	0097(001)(002)		1995	16,800,000	7,526,400	1,357,328	6,169,072	9,273,600
Pennsylvania	1106(b)27	Chambersburg: I-81 interchange	0027(001)	4	1994	1,840,000	824,320	131,560	692,760	1,015,680
Pennsylvania	1106(b)3	Beave/Butler Co: I-79 to Rt. 60	178-0556058,44-801		1996	3,500,000	1,568,000	0	1,568,000	1,932,000
Pennsylvania	1106(b)47	North Scranton Expressway	0047(001)	5	1992	7,200,000	3,225,600	3,226,000	(400)	3,974,400
Pennsylvania	1106(b)79	Industrial Park, Wash. Co.	9119-001		1997	6,300,000	2,822,400	0	2,822,400	3,477,600
Pennsylvania	1106(a)80	Chadville Improve Project	0003-100,0073-003,008	12	1991	2,400,000	1,075,200	0	1,075,200	1,324,800
Pennsylvania	1107(b)110	Jacobs Timber Bridge	0110(001)	5	1991	350,000	156,800	166,000	(9,200)	193,200
Pennsylvania	1107(b)134	Route 120 - Lock Haven	0134(001)		1996	4,000,000	1,792,000	0	1,792,000	2,208,000
Pennsylvania	1107(b)135	Tioga River bridge US-15	0135(001)	6	1993	3,200,000	1,433,600	1,433,000	600	1,766,400
Pennsylvania	1107(b)136	Wysox Narrows Road	0136(001)	11	1994	3,000,000	1,344,000	0	1,344,000	1,656,000
Pennsylvania	1107(b)145	Driver Info. System-Univ of Arts	0145(001)		UNK	2,000,000	896,000	896,000	0	1,104,000
Pennsylvania	1107(b)19	Borough of Water Street-US 22	0019(001),6-103		1996	8,000,000	3,584,000	218,959	3,365,041	4,416,000
Pennsylvenia	1107(b)20	Borough of Hollidaysburg: US 22	0020(001)		1999	52,000,000	23,296,000	0	23,296,000	28,704,000
Pennsylvania	1107(b)21	Lewistown Narrows safety	0021(001)	4	1992	1,600,000	716,800	716,800	0	883,200
Pennsylvania	1107(b)22	US 22 North of Lewistown	0022(001)		1997	58,300,000	26,118,400	113,231	26,005,169	32,181,600
Pennsylvania	1107(b)23	Reedsville and Seven Mountains	0023(01)		1996	35,100,000	15,724,800	0	15,724,800	19,375,200
Pennsylvania	1107(b)24	Eliminate 23 RR X-ings (MD,PA)	0024(001)		1993	14,400,000	6,451,200	342,800	6,108,400	7,948,800
Pennsylvania	1107(b)25	Roaring Springs: PA 36	0025(001)	10	1994	8,800,000	3,942,400	367,807	3,574,593	4,857,600
Pennsylvania	1107(b)26	Altoona to Juniata	0026(001)		1995	7,120,000	3,189,760	0	3,189,760	3,930,240
Pennsylvania	1107(b)27	Bedford Co. - Rt. 30	0027(001)		1998	48,000,000	21,504,000	1,858,447	19,645,553	26,496,000
Pennsylvania	1107(b)31	Widen US 202 to Montgomeryville	UNK		1999	8,900,000	3,987,200	0	3,987,200	4,912,800
Pennsylvania	1107(b)52	Wilkes-Barre & Mountaintop	0052(001)		1999	16,700,000	7,481,600	0	7,481,600	9,218,400
Pennsylvania	1107(b)58	Montgomeryville: US 202	0058(001)		1999	10,800,000	4,838,400	0	4,838,400	5,961,600
Pennsylvania	1107(b)79	Exton Bypass	0079(001),248-011	2	1993	26,800,000	12,006,400	12,006,000	400	14,793,600
Pennsylvania	1108(b)19	Allegheny Co.-Pittsburg Airport	0019(001)		1995	21,700,000	9,721,600	0	9,721,600	11,978,400
Pennsylvania	1108(b)26	Busway to Pittsburg Airport	0026(001)	12	1994	9,800,000	4,390,400	513,890	3,876,510	5,409,600
Pennsylvania	1108(b)29	PA Convention Cntr, Philadelphia	0029(001)-(002)	9	1993	9,500,000	4,256,000	2,508,000	1,748,000	5,244,000

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Pennsylvania	1108(b)39	Erie Co.:Eastside Connector Proj.	0039(001)		1999	7,500,000	3,360,000	1,966,927	1,393,073	4,140,000
Pennsylvania	1108(b)5	OH border to Pittsburg Airport	0005(001)		1996	3,200,000	1,433,600	0	1,433,600	1,766,400
Pennsylvania	1108(b)6	Reconst. Old Delaware Ave. Serv.	0006(001)	10	1994	2,400,000	1,075,200	240,000	835,200	1,324,800
TOTAL						881,710,000	395,006,080	55,725,084	339,280,996	486,703,920
Rhode Island	1106(b)75	Providence: Memorial Blvd	DPU-0075(001)		1992	5,000,000	2,240,000	2,240,000	0	2,760,000
Rhode Island	1107(b)140	I-95 Stormdrain Construction	DPI-0140(001)		1995	13,000,000	5,824,000	800,800	5,023,200	7,176,000
Rhode Island	1107(b)141	Kingston RR Station	DPI-0141(001)	1	1994	2,000,000	896,000	588,415	307,585	1,104,000
Rhode Island	1107(b)142	Lincoln & Cumberland: Rehab of Albion Bridge/Albion Trench Brg	DPI-0142(001)	4	1994	2,000,000	896,000	0	896,000	1,104,000
Rhode Island	1107(b)143	Marine Mode of the Intermodal	DPI-0143(001)		1995	6,000,000	2,688,000	465,190	2,222,810	3,312,000
Rhode Island	1107(b)144	Bristol: road improvements	DPI-0144(001)		1993	2,000,000	896,000	506,039	389,961	1,104,000
Rhode Island	1107(b)147	Woonsocket Route 99 Extension	DPI-0147(001)	7	1994	1,960,000	878,080	151,962	726,118	1,081,920
Rhode Island	1107(b)148	Woonsocket: Repaving	DPI-0148(001)		1993	1,400,000	627,200	17,600	609,600	772,800
Rhode Island	1107(b)149	Woonsocket Bridge Improvements	DPI-0149(001)	6	1999	350,000	156,800	0	156,800	193,200
Rhode Island	1107(b)150	Reconstruction of Roadways	DPI-0150(001)		1996	5,700,000	2,553,600	648,396	1,905,204	3,146,400
Rhode Island	1107(b)151	RI Public Transit Authority	DPI-0151(001)		1992	18,000,000	8,064,000	0	8,064,000	9,936,000
TOTAL						57,410,000	25,719,680	5,418,402	20,301,278	31,690,320
South Carolina	1103(b)11	Hwy 17 Brdg, Cooper River Charleston	DPB-11(1)		1998	14,200,000	6,361,600	6,361,600	0	7,838,400
South Carolina	1106(a)85	Southern Connector Hwy. Greenville County	DPR-085(1)		1998	3,600,000	1,612,800	1,612,800	0	1,987,200
South Carolina	1107(b)138	Hwy Impr Greenville Co & Hwy 17 Bridge Replacement	DPI-138(1)		1998	11,000,000	4,928,000	4,928,000	0	6,072,000
South Carolina	1107(b)139	Columbia Rail Corridor Removal	DPI-139(1)		1995	4,000,000	1,792,000	1,792,000	0	2,208,000
South Carolina	1107(h)84	Myrtle Beach: Carolina Bays Pkwy	DPI-84(1)		2000	5,900,000	2,643,200	2,643,200	0	3,256,800
TOTAL						38,700,000	17,337,600	17,337,600	0	21,362,400
South Dakota	1105(f)17	Improve Heartland Expressway	UNK		1997	14,800,000	6,630,400	0	6,630,400	8,169,600
South Dakota	1107(b)51	Mo River bridge in Vermillion	HDPS-9206(001)		1997	3,600,000	1,612,800	80,000	1,532,800	1,987,200
TOTAL						18,400,000	8,243,200	80,000	8,163,200	10,156,800

ISTEA DEMONSTRATION PROJECTS

C:ISTEA16F
02/04/94

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Tennessee	1104(h)17	Bicyle Sys. Contr.-Murfreesboro	DPC-17(1)		1995	400,000	179,200	40,000	139,200	220,800
Tennessee	1104(h)3	Davidson-Williamson County Bike Path	DPC-3(1)		1995	1,000,000	448,000	25,000	423,000	552,000
Tennessee	1105(f)2	Route 72 East-West Corridor	DPS-T002(1)		1996	2,794,000	1,251,712	416,000	835,712	1,542,288
Tennessee	1105(f)25	Cumberland Gap Tunnel & US-25E Corridor (KY,TN,VA)	DPS-25(1)		UNK	27,518,552	12,328,311	0	12,328,311	15,190,241
Tennessee	1106(a)13	Ft Loudon Dam Brdg-Lenoir City	DPR-13(1)		1995	500,000	224,000	38,766	185,234	276,000
Tennessee	1106(a)14	US Highway 411-Blount City	DPR-14(1)		1996	15,700,000	7,033,600	0	7,033,600	8,666,400
Tennessee	1106(a)69	W. Fork Stone River Bridge in Rutherford	DPR-69(1)	5	1994	800,000	358,400	62,025	296,375	441,600
Tennessee	1106(b)45	Urban Diamond Interchange & Connector-Chattanooga	DPU-45(1)		1995	3,100,000	1,388,800	240,348	1,148,452	1,711,200
Tennessee	1107(b)76	I-81/Kendrick Creek Rd.-Sullivan	DPI-76(1)		1995	5,800,000	2,598,400	80,000	2,518,400	3,201,600
Tennessee	1107(b)77	Foothills Parkway	DPI-0077(001)		1997	11,200,000	5,017,600	0	5,017,600	6,182,400
TOTAL						68,812,552	30,828,023	902,139	29,925,884	37,984,529

State	Public Law	Project Description	Project Number	Est Const Start MO	Est Const Start	Amount Auth/Appn	Amount Available Thru FY 1994	Amount Obligated (01/31/94)	Unoblig Bal (01/31/94)	New Authorization 95-97
Texas	1105(f)15	Constr. US-71	DPS-1015(001)		1997	6,255,200	2,802,330	0	2,802,330	3,452,870
Texas	1106(a)084	Brownsvill Railroad Reloc.	DPR-0084(001)	3	1994	6,700,000	3,001,600	0	3,001,600	3,698,400
Texas	1106(a)110	Contr-Impr 4-lane divided hwy	DPR-0110(001)		1995	43,900,000	19,667,200	0	19,667,200	24,232,800
Texas	1106(a)111	Parker Co: Hwy 199	DPR-0111(001)	8	1992	35,500,000	15,904,000	6,380,210	9,523,790	19,596,000
Texas	1106(a)114	Travis Co: Hwy 620 Bridge	DPR-0114(001)	8	1992	11,400,000	5,107,200	3,009,600	2,097,600	6,292,800
Texas	1106(a)57	Widen Hwy FM-364: Beaumont	DPR-0057(001)	5	1994	10,400,000	4,659,200	0	4,659,200	5,740,800
Texas	1106(a)59	Laredo: Expand 2-lane hwy	DPR-0059(001)		1993	7,400,000	3,315,200	1,953,600	1,361,600	4,084,800
Texas	1106(a)61	Connect Lubbock with I-20	DPR-0061(001)	4	1994	2,900,000	1,299,200	0	1,299,200	1,600,800
Texas	1106(a)62	ROW Hwy 36 bypass, Rosenberg	DPR-0062(001)		1995	900,000	403,200	237,600	165,600	496,800
Texas	1106(a)63	Highway 288: Angleton	DPR-0063(001)		1997	900,000	403,200	0	403,200	496,800
Texas	1107(b)101	Ft Worth: 1-35 Basswood interch	DPI-0101(001)		1995	17,800,000	7,974,400	0	7,974,400	9,825,600
Texas	1107(b)114	Hwy 620 Bridge Impr: Travis Co	DPI-0114(001)		1995	41,700,000	18,681,600	0	18,681,600	23,018,400
Texas	1107(b)115	Ft Worth Hillwood/1-35 Interch	DPI-0115(001)(002)	7	1994	12,700,000	5,689,600	1,645,360	4,044,240	7,010,400
Texas	1107(b)34	Brooks & Jim Wells Cos: US 281	DPI-0034(001)	10	1992	27,600,000	12,364,800	4,247,972	8,116,828	15,235,200
Texas	1108(b)44	Ft Worth Intermodal Center	DPM-0044(001)		UNK	13,400,000	6,003,200	0	6,003,200	7,396,800
Texas	1108(b)47	I-35 Traffic Congestion Studies Williamson,Travis,Cadwell,Guadalupe	DPM-0047(001)		1997	5,200,000	2,329,600	2,329,600	0	2,870,400
TOTAL						244,655,200	109,605,530	19,803,942	89,801,588	135,049,670
Utah	1106(b)51	Expansion of State Rd. 5600 West	DPU-0051(001)		1996	3,300,000	1,478,400	0	1,478,400	1,821,600
Utah	1107(b)45	Interchange I-15: Brigham City	DPI-0045(001)		1994	3,600,000	1,612,800	428,540	1,184,260	1,987,200
Utah	1107(b)46	Davis & Weber Cos: US 89	DPI-0046(001)		1993	3,000,000	1,344,000	0	1,344,000	1,656,000
Utah	1108(b)38	Provo Municipal Airport	DPM-0038(1)		1997	1,000,000	448,000	0	448,000	552,000
TOTAL						10,900,000	4,883,200	428,540	4,454,660	6,016,800
Vermont	1107(b)146	Constr. US-7 N Bennington to SW NY-7 Hoosick NY (NY,VT)	DPI-0146(001)		1999	20,000,000	8,960,000	1,389,600	7,570,400	11,040,000
TOTAL						20,000,000	8,960,000	1,389,600	7,570,400	11,040,000

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Virgin Islands	1104(b)134	Raphune Hill Bypass: St. Thomas	DPC034(001)		1996	18,400,000	8,243,200	4,850,000	3,393,200	10,156,800
Virgin Islands	1107(b)94	Constr. second Road: St. Thomas	UNK		UNK	1,700,000	761,600	0	761,600	938,400
TOTAL						20,100,000	9,004,800	4,850,000	4,154,800	11,095,200
Virginia	1103(b)5	York River, Goucester Pt.	DPB-0005(001)	11	1994	11,800,000	5,286,400	0	5,286,400	6,513,600
Virginia	1104(b)33	Prince William I-95 HOV Lane Ext	DPC-0033(001)		1995	13,500,000	6,048,000	0	6,048,000	7,452,000
Virginia	1105(f)28	Danville Bypass	DPS-0028(001)	12	1993	17,000,000	7,616,000	2,824,331	4,791,669	9,384,000
Virginia	1106(a)109	Prince Ed. widening of SR-460	DPR-0109(001)	6	1994	4,400,000	1,971,200	280,000	1,691,200	2,428,800
Virginia	1106(b)50	VA Mixing Bowl (I-95/I-495)	DPU-0050(003)		1997	7,500,000	3,360,000	0	3,360,000	4,140,000
Virginia	1107(b)118	I-64 crossing of Hampton Roads	DPI-0118(001)		1993	5,900,000	2,643,200	1,557,600	1,085,600	3,256,800
Virginia	1107(b)14	Main/Worsham St. Brdg/Danville	DPI-0014(001)		1997	10,000,000	4,480,000	0	4,480,000	5,520,000
Virginia	1107(b)157	VA Inters. Sys. & 4R Safety	DPI-0157(001)	6	1994	63,500,000	28,448,000	0	28,448,000	35,052,000
TOTAL						133,600,000	59,852,800	4,661,931	55,190,869	73,747,200
Washington	1105(f)27	US-395 from Canadian border to Oregon line	DPS-0027(001)		1993	54,500,000	24,416,000	24,416,000	0	30,084,000
Washington	1106(a)78	Rt 14 Impr. (Columbia,Riv. Georgia and Washington)	DPR-0078(001)		1995	8,600,000	3,852,800	1,196,633	2,656,167	4,747,200
Washington	1106(b)32	Belleview: I-405 Interchange	DPU-0032(001)	12	1993	5,000,000	2,240,000	2,240,000	0	2,760,000
Washington	1106(b)76	Houser Way Expansion-Reston	DPU-0076(001)		1995	3,000,000	1,344,000	232,595	1,111,405	1,656,000
Washington	1107(b)39	Bryden Canyon Br Proj/Clarkston	DPI-0039(001)		1995	3,900,000	1,747,200	270,324	1,476,876	2,152,800
Washington	1107(b)83	Marysville:I-5 Interc on 88th St	DPI-0083(001)		1994	1,900,000	851,200	0	851,200	1,048,800
Washington	1107(b)88	Gray's Harbor Industrial Corridor Bridge, Hoquiam	DPI-0088(001)	6	1993	4,700,000	2,105,600	2,105,600	0	2,594,400
Washington	1108(b)20	Pierce Co: Tacoma Narrows Br	DPM-0020(001)	9	1993	700,000	313,600	313,600	0	386,400
Washington	1108(b)24	Spokane: Feasibility Study	DPM-0024(001)	8	1992	800,000	358,400	358,400	0	441,600
TOTAL						83,100,000	37,228,800	31,133,152	6,095,648	45,871,200

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West Virginia	1104(b)42	Impr. SR-9 Martinsburg to VA Berkeley & Jefferson Co	DPC-0042(007)(012)	9	1994	110,000,000	49,280,000	921,600	48,358,400	60,720,000
West Virginia	1104(b)43	Constr. Coal Field Expressway	DPC-0043(002)		1997	50,000,000	22,400,000	2,148,338	20,251,662	27,600,000
West Virginia	1105(f)10	Shawnee Project, part of I-73/74 Corridor Project	DPS-0010(056)		1998	4,500,000	2,016,000	1,188,000	828,000	2,484,000
West Virginia	1105(f)11	Widening US-52 Huntng.-Williem.	UNK		1996	100,000,000	44,800,000	0	44,800,000	55,200,000
West Virginia	1105(f)12	Replac. US-52 From Williamson WV to I-77	DPS-0012(013)		1996	14,000,000	6,272,000	2,087,865	4,184,135	7,728,000
West Virginia	1106(a)105	Hwy Impr. Mason County	DPR-0105		1995	19,500,000	8,736,000	136,000	8,600,000	10,764,000
West Virginia	1106(a)118	Chelyan Bridge Replacement	DPR-0118(001)	11	1994	8,500,000	3,808,000	0	3,808,000	4,692,000
West Virginia	1106(a)77	Riverside Expressway Imprv.	DPR-0077(004)		1996	5,300,000	2,374,400	480,000	1,894,400	2,925,600
TOTAL						311,800,000	139,686,400	6,961,803	132,724,597	172,113,600
Wisconsin	1104(b)36	I-794 Bicycle Transportation	0036(001)		UNK	1,500,000	672,000	0	672,000	828,000
Wisconsin	1107(b)131	Hwy 41 Oshkosh to Green Bay	0131(001)(002)	5	1993	41,700,000	18,681,600	9,973,340	8,708,260	23,018,400
Wisconsin	1107(b)132	Hwy 28 Chippewa Falls to Hwy 73	0132(001)-(010)	4	1993	28,300,000	12,678,400	12,678,396	4	15,621,600
TOTAL						71,500,000	32,032,000	22,651,736	9,380,264	39,468,000
Wyoming	1107(b)156	Reconstr. of County Roads	DPI-0156(001)-(024)	5	1993	20,000,000	8,960,000	3,227,400	5,732,600	11,040,000
TOTAL						20,000,000	8,960,000	3,227,400	5,732,600	11,040,000
Multistate	1105(f)24		-		-	1,000,000	448,000	0	448,000	552,000
TOTAL						1,000,000	448,000	0	448,000	552,000
TOTAL						6,236,040,000	2,793,745,920	789,834,240	2,005,606,590	3,442,294,080

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02/16/94

FEDERAL HIGH NISTRATION
MISC. APPROPRIATED (GF) AND MISC. , Y TRUST FUNDS DEMO PROJECTS

AS OF 1/31/94

Appn Code	State	Description/Title	Public Law	Year Auth/ Appn	FTA	Project Number	Est Const. Start	Amount Auth/Appn	Amount Obligated 1/31/94	Total Unobligated Balance
348	Alabama	Alabama Highway Bypass Demonstration Project	100-457&102-143	1988, 92		DE-471(24)(28)(31)	1993	3,200,000	0	3,200,000
505	Alabama	Alabama Highway Bypass Demonstration Project	100-457;101-164,515;102-143	1988, 92		DE-471(24)(28)(31)	1993	29,322,889	5,875,723	23,447,166
								32,522,889	5,875,723	26,647,166
341	Arizona	Sky Harbor Airport Access Road	102-388	1993		UNK	1994	6,000,000	0	6,000,000
513	Arizona	Reservation Road	100-457	1989		RS-0347(10)	1993	3,500,000	3,500,000	0
528	Arizona	Sky Harbor Access Road	102-143	1992		UNK	1994	5,040,000	0	5,040,000
528	Arizona	Highway Demonstration Projects	102-143	1992		HDP-RS-9208(2)(3)	1993	3,600,000	3,600,000	0
532	Arizona	Trade Enhancement Demonstration Project	101-516	1991		F-032-1(008)	1994	10,624,862	100,000	10,524,862
								28,764,862	7,200,000	21,564,862
341	Arkansas	Lock & Dam No. 4, Pine Bluff	102-388	1993		HDP-9101(001)(002)(003)(004)	1994	6,400,000	4,420,000	1,980,000
519	Arkansas	Great River Bridge Desha County	101-516	1991		HDPPE-9126(001);DPB-(380)0004(1)	UNK	1,275,000	1,002,976	272,024
519	Arkansas	Lock & Dam #4 Bridge	101-516	1991		HDPPE-9134(001)	UNK	1,275,000	10,000	1,265,000
528	Arkansas	Highway Demonstration Projects	101-516	1989		HDP-9101(002)	1993	2,125,000	1,920,000	205,000
529	Arkansas	Highway Demonstration Projects	102-143	1992		HDP-9101(001)	1993	3,600,000	3,588,000	12,000
529	Arkansas	Highway Demonstration Projects	101-516&102-143	1991, 92		HDP-9102(001)	1993	21,099,785	21,100,000	(215)
548	Arkansas	Lock and Dam No. 4 Bridge	103-122	1994		UNK	UNK	4,000,000	0	4,000,000
697	Arkansas	Railroad-Highway Crossings Demonstration Project	94-280	1976		RR-7136(001)	1993	14,527,143	14,460,159	66,984
								54,301,928	46,501,166	7,800,793
301	California	Airport Access Demonstration Project, Ontario International Airport	99-591, 100-457	1987		DE-0007(802)(803)(804)	1994	2,450,000	2,450,000	0
341	California	Access Ontario International Airport	102-388	1993		UNK	UNK	3,200,000	0	3,200,000
341	California	Hollister; Highway 156 Bypass	102-388	1993		HDPPE-9103(001)	1995	960,000	960,000	0
341	California	U.S. 101 Scenic Byways Project	102-388	1993		UNK	UNK	460,000	0	460,000
341	California	Highway Projects	102-388	1993		HDPPE-9103(001)	1995	960,000	960,000	0
518	California	Dixon, RIO Vista Bypass Studies	101-516	1991		HDPPE-9101&2(001)	UNK	200,000	200,000	0
516	California	California S.R.-156 Bypass of Hollister	101-516	1991		HDPPE-9103(001)	1996	1,275,000	1,275,000	0
528	California	California Highway 152 from I-5 to US-101 and SR-1	102-143	1992		HDP-9207(001)	1994	1,800,000	0	1,800,000
545	California	Orange County Toll Road	102-388	1993		8073029	1993	120,000,000	120,000,000	0
569	California	Highway Bypass Demo-Prunedale, Ca.	100-202, 102-143	1992		BPH-P101(501)	1996	10,900,000	1,900,000	9,000,000
								142,205,000	127,745,000	14,460,000
341	Florida	NE Dade Bikepaths, N. Miami Beach	102-388	1993		HDP-9213(1)	1994	400,000	0	400,000
341	Florida	Highway Projects	102-143	1992		HDP-9103(1)	1993	1,760,000	1,760,000	0
341	Florida	Biscayne Blvd / US 1 Connect Port Miami	102-388	1993		UNK	UNK	2,400,000	0	2,400,000
341	Florida	17th Street Causeway Tunnel	102-388	1993		HDP-9210(1)	1996	4,612,000	0	4,612,000
341	Florida	NE Dade Bikepaths, N. Miami	102-388	1993		HDP-9209(1)	1994	400,000	0	400,000
501	Florida	Highway Capacity Improvement Demonstration Project	100-457;101-515	1989		DE-127-1(901)	1993	2,699,978	2,699,978	0
519	Florida	Biscayne Boulevard Renovation, Miami FL	101-516	1991		HDPPE-9105(1)	UNK	1,700,000	1,700,000	0
516	Florida	FL Causeway Tunnel/Bridge - Fort Lauderdale, FL	101-516	1991		HDPPE-9104(1)	1997	3,881,890	1,996,183	1,885,707
528	Florida	Highway Demonstration Projects	102-143	1992		HDP-9103(1)	1993	11,999,851	11,501,384	498,467
528	Florida	Florida Northeast Dale Bikepaths	102-143	1992		HDP-9211(1)	1994	850,000	127,500	722,500
528	Florida	Florida Northeast Dale Bikepaths - N. Miami Beach	102-143	1992		HDP-9213(1)	1994	865,000	129,750	735,250
528	Florida	Study to Connect I-65 Alabama to I-10 in Pensacola	102-143	1992		HDP-9202(1)	UNK	1,842,000	1,158,061	683,939
528	Florida	Florida Causeway Tunnel/Bridge - Fort Lauderdale, fl.	102-143	1992		HDP-9210(1)	1995	5,225,000	0	5,225,000
529	Florida	Florida Northeast Dade Bikepaths - North Miami	102-143	1992		HDP-9209(1)	1994	800,000	120,000	680,000
538	Florida	Bridge Improvement Demonstration Project	100-202	1988		BRZD-0002(66)	1993	2,000,000	2,000,000	0
567	Florida	Bridge Improvement Demonstration Project	100-202,457;101-164	1988		BRZD-0002(66)	1993	15,288,000	11,531,868	3,756,132
								56,730,716	34,324,704	22,406,016

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FEDERAL HIGHW IISTRATION
MISC. APPROPRIATED (GF) AND MISC. h r TRUST FUNDS DEMO PROJECTS

AS OF 1/31/94

Appn Code	State	Description/Title	Public Law	Year Auth/ Appn	FTA	Project Number	Est Const Start	Amount Auth/Appn	Amount Obligated 1/31/94	Total Unobligated Balance
166	Georgia	Railroad–Highway Crossings Demonstration Projects, Augusta	102–388	1992		DPM–0048(001)	1997	1,013,334	0	1,013,334
341	Georgia	Lake Lanier Access Project	102–388	1993		AHL–347(5)	1994	2,624,000	2,624,000	0
341	Georgia	Highway Projects	102–388	1993		AHL–347(5)	1994	2,624,000	2,624,000	0
526	Georgia	Olive Road Crossing – Augusta, Ga.	101–516	1991		HDP–RR–9104(001)	1996	1,675,000	40,000	1,635,000
697	Georgia	Railroad–Highway Crossings Demo Project, Augusta, Ga.	102–143&94–280	1992, 76		HDP–RR–9104(001)	1997	17,035,309	11,686,242	5,349,067
								24,971,643	16,974,242	7,997,401
341	Hawaii	Saddle Road, Island of Hawaii	102–388	1993		UNK	1996	960,000	0	960,000
341	Hawaii	Kihei–Haleakala Highway	102–388	1993		UNK	1996	4,000,000	0	4,000,000
541	Hawaii	Highway Study – Kahei–Haleakala Highway	102–143	1992		HDPS–9203(1)	1996	1,200,000	600,000	600,000
								6,160,000	600,000	5,560,000
519	Illinois	Rt 336 from US–24 to US–136, IL	101–164	1990		REDD–302(2),REDD–4071(21)	1996	1,595,310	1,595,310	0
519	Illinois	Rural Economic Development SR–336, IL	101–516	1991		HDPPE–9106(1)	1996	1,500,000	1,500,000	0
526	Illinois	U S Highway 20 between Freeport and Galena, IL	102–143	1992		HDPACDPIDP–32(1)	1996	2,113,000	2,113,000	0
526	Illinois	Bridge Construction – Hillboro IL	102–143	1992		UNK	1994	850,000	0	850,000
526	Illinois	Bridge Construction – Hillsboro IL	101–516	1991		9106(001)	1994	430,000	61,470	368,530
526	Illinois	Springfield, IL – Eleventh Street Extension	102–143	1992		UNK	1997	700,000	0	700,000
697	Illinois	Railroad–Highway Crossings Demonstration Project	102–143	1992		RR–1(10)	1993	620,000	620,000	0
								7,808,310	5,889,780	1,918,530
166	Indiana	Railroad–Highway Crossings Demonstration Projects	102–388	1993		UNK	1993	898,000	0	898,000
341	Indiana	SR 67, I–69 to Muncie Bypass	102–388	1993		UNK	1996	4,992,000	0	4,992,000
341	Indiana	I–65 / SR–46 Interchange, Columbus	102–388	1993		HDPPE–9109(001)	1994	6,400,000	0	6,400,000
503	Indiana	Indiana Industrial Corridor Safety Demonstration Project	100–457,101–164,516	1990, 89		UNK	1993	5,927,967	3,537,735	2,390,232
503	Indiana	Indiana Industrial Corridor Safety Demonstration Project	102–143	1992		F–1465(1),(2)F–1464(1)	UNK	3,600,000	3,023,351	576,649
519	Indiana	I–65 & SR–46 Interchange – Columbus (Front Door Project)	101–516	1991		HDPPE–9109(001)	1994	2,125,000	2,125,000	0
519	Indiana	US–12 Relocation – E. Chicago Marina, IN	101–516	1991		HDPPE–9107(001)	UNK	170,000	30,552	139,448
519	Indiana	SR–67 from I–69 to Muncie Bypass	101–516	1991		HDPPE–9106(1)	1996	1,190,000	1,190,000	0
526	Indiana	Indianapolis to Evansville (I–69)	102–143	1992		HDP–9222(001)	UNK	3,200,000	1,039,985	2,160,015
526	Indiana	SR–67 From I–69 to Muncie By–pass	102–143	1992		HDP–9223(1)(2)(3)	1996	6,300,000	889,040	5,410,960
526	Indiana	Rt 12 Relocation – E. Chicago Marina	102–143	1992		HDP–9225(001)	UNK	756,000	667,760	88,240
697	Indiana	Railroad–Highway Crossings Demonstration Project	92–280,102–143,388	• 1992		UNK	1993	29,260,000	18,413,442	10,846,558
697	Indiana	Railroad–Highway Crossings Demonstration Project	102–388	1993		UNK	1993	446,000	0	446,000
697	Indiana	Railroad–Highway Crossings Projects, Lafayette	103–122	1994		UNK	UNK	16,038,860	0	16,038,860
								81,303,827	30,916,865	50,386,962
341	Iowa	Highway Projects	101–516,102–143&388	1991,92,93		HDP–9107	1993	2,000,000	419,224	1,580,776
341	Iowa	Highway Projects	101–516&102–388	1991		HDPPE–9110	1993	3,520,000	670,709	2,849,291
341	Iowa	Ottumwa Rd Ext, Des Moines to Burlington	102–388	1990		DE–163–3, DE–23–1	1995	8,000,000	0	8,000,000
519	Iowa	Highway Demonstration Projects –– Preliminary Engineering	101–516&102–388	1991		HDPPE–9110	1993	212,000	212,000	0
520	Iowa	Des Moines Inner Loop	101–164	1990		M–2787	2000	2,792,000	0	2,792,000
526	Iowa	Des Moines Inner Loop	102–143	1992		HDP–9218	2000	1,820,000	1,631,986	188,014
526	Iowa	Highway Demonstration Projects	102–143	1992		HPD–9217	1993	3,200,000	2,098,357	1,101,643
526	Iowa	Highway Demonstration Projects	101–516	1991		HDP–9108	1993	5,099,871	4,850,342	249,529
526	Iowa	Highway Demonstration Projects	101–516,102–143&388	1991,92,93		HDP–9107	1993	7,900,000	7,258,402	641,598
526	Iowa	Highway No. 30–Clinton	102–143	1992		DE–30–9	UNK	1,440,000	0	1,440,000
526	Iowa	Iowa Highway 2 – Relocation of Rt2 from Sydney to I–29	102–143	1992		HDP–9219	2000	360,000	0	360,000
533	Iowa	Ottumwa Road Extension Project	102–143	1992		UNK	UNK	7,200,000	0	7,200,000
534	Iowa	Iowa Connector Project	101–516	1991		HDP–1642	1993	1,467,981	1,467,981	0
535	Iowa	Early to Ft. Dodge	101–516	1991		DE–0201069	UNK	2,549,967	793,258	1,756,709
								47,561,819	19,402,259	28,159,560
341	Kansas	Highway Projects	102–388	1993		DPB K527(701)	1996	2,900,000	2,256,000	644,000
341	Kansas	US54 / Oliver Road, Interchange	102–388	1993		DPI 44(1)	1997	2,220,000	0	2,220,000
341	Kansas	K–132 Project, Kansas City	102–388	1993		DPB K527(701)	1996	2,900,000	2,256,000	644,000
524	Kansas	Manhattan Bridge Replacement Demonstration Project	101–164	1990		DE–061–1(002)	1993	3,200,000	3,200,000	0
525	Kansas	Junction City Highway Improvement Demonstration Project	101–164	1990		DE–055–3(030)	1993	399,000	399,000	0
526	Kansas	Southeast Kansas Corridor	102–143	1992		HDP–9227(1)	1995	1,376,000	0	1,376,000
526	Kansas	I–70/110th St Interchange Kansas City	101–516	1991		HDP–9109(001)	1996	3,693,000	246,400	3,446,600
526	Kansas	I–35 Interchange – Salina	102–143	1992		HDP–9229(001)	1996	2,584,000	209,600	2,374,400
526	Kansas	Overland Park Interchange	102–143	1992		HDP–9228(001)	1996	3,600,000	0	3,600,000
637	Kansas	US 54 Interchange at Dugan St. – Wichita	101–516	1991		DE–038–3(079)	1994	9,264,660	800,000	8,464,660
								32,136,660	9,367,000	22,769,660

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FEDERAL HIGHWA STRATION
MISC. APPROPRIATED (GF) AND MISC. HI. TRUST FUNDS DEMO PROJECTS

AS OF 1/31/94

Appn Code	State	Description/Title	Public Law	Year Auth/ Appn	FTA	Project Number	Est Const Start	Amount Auth/Appn	Amount Obligated 1/31/94	Total Unobligated Balance
340	Kentucky	Highway Widening and Improvement	102-388	1993		UNK	1993	1,344,000	0	1,344,000
348	Kentucky	Kentucky Bridge Demonstration Project	100-457	1989		KBD 10-1	1993	6,400,000	6,400,000	0
608	Kentucky	Kentucky Bridge Demonstration Project	100-457;101-164,516;102-143	1989		KBD 10-1	1993	16,432,956	16,432,956	0
547	Kentucky	Appalachian Corridor Improvement Project for Corridor B	103-122	1994		UNK	UNK	3,000,000	0	3,000,000
546	Kentucky	Cumberland Gap Tunnel Project	103-122	1994		UNK	UNK	6,000,000	0	6,000,000
556	Kentucky	Replace Glover Cary Bridge in Owensboro, KY	103-122	1994		UNK	UNK	12,000,000	0	12,000,000
592	Kentucky	Highway Widening & Improvement Demonstration Project	100-202,457;101-164,516,102-143	1988, 92		UNK	1993	22,000,956	10,918,295	11,082,661
								67,177,912	33,751,251	33,426,661
541	Louisiana	Extension of I-49 and /or US. 167 from Abbeville to Ester	102-388	1992		UNK	UNK	600,000	0	600,000
308	Louisiana	Airport Access Highway Demonstration Project	99-591	1987		NOAD-M-0067(001)	1993	2,500,000	2,500,000	0
								3,100,000	2,500,000	600,000
191	Maryland	Baltimore-Washington Parkway	102-143	1992		UNK	1993	64,963,691	0	64,963,691
544	Maryland	Baltimore-Washington Parkway	103-122	1994		UNK	UNK	12,800,000	0	12,800,000
544	Maryland	Baltimore-Washington Parkway	102-388	1993		UNK	1994	15,000,000	0	15,000,000
								92,763,691	0	92,763,691
311	Massachusetts	Vehicular and Pedestrian Safety Demonstration Project	100-71	1987		VPSD 0008(001)	1996	6,000,000	2,632,729	3,367,271
619	Massachusetts	Blackstone River Bikeway, MA	101-516	1991		HDPPE 9111 (001)	UNK	255,000	42,968	212,032
526	Massachusetts	Center Street Extension - Pittsfield, MA	101-516	1991		UNK	1996	3,360,000	0	3,360,000
								9,615,000	2,675,697	6,939,303
302	Michigan	Highway Safety Improvement Demonstration Project	99-591&102-143	1992		UNK	1993	34,558,901	31,243,393	3,315,508
341	Michigan	I-96 Bypass, Grand Rapids	102-388	1993		9232(001)	1997	768,000	0	768,000
341	Michigan	US-31, Cities of Niles And Benton Harbor	102-388	1993		UNK	1994	320,000	0	320,000
341	Michigan	M-84, Bay Rd - Saginau and Bay Cos.	102-388	1993		9113(002)	1996	100,000	0	100,000
341	Michigan	Maple Rd Ext., Walled Lake	102-388	1993		9230(001)	1994	2,000,000	0	2,000,000
341	Michigan	Highway Projects	102-388	1993		UNK	1993	1,440,000	1,440,000	0
348	Michigan	Urban Highway Corridor and Bicycle Transportation	102-388	1993		UNK	1993	3,392,000	1,646,800	1,745,200
349	Michigan	Urban Airport Access Safety Demonstration Project	102-388	1993		UNK	1993	3,840,000	0	3,840,000
608	Michigan	Urban Highway Corridor Demonstration Project	100-457;101-164;516,102-143	1990, 92		UNK	1993	24,588,878	21,265,226	3,323,652
609	Michigan	Urban Airport Access Safety Demonstration Project	100-457;101-164,516	1989		UNK	1993	14,556,878	11,034,957	3,521,921
619	Michigan	US-31 In Cities of Niles and Benton Harbor	101-516	1991		9114(001)	1994	850,000	850,000	0
619	Michigan	M-84: Expansion Saginaw, Bay Counties	101-516	1991		9113(001)	1996	2,125,000	2,125,000	0
619	Michigan	Highway Demonstration Projects -- Preliminary Engineering	101-516	1991		9112(1)(2)	1993	5,373,839	5,373,839	0
526	Michigan	Highway Demonstration Projects	102-143	1992		9232(001)	1993	2,400,000	2,400,000	0
526	Michigan	US-31 In Cities of Niles and Benton Harbor	102-143	1992		9233(001)	1994	450,000	450,000	0
526	Michigan	Rail Consolidation/ Highway Safety Monroe, MI	101-516	1991		9112(001)	1994	2,975,000	240,000	2,735,000
526	Michigan	I-96 Bypass Grand Rapids	102-143	1992		9232(001)	1997	2,400,000	2,400,000	0
526	Michigan	Maple Road Extension - Walled Lake	102-143	1992		9230(001)	1994	2,400,000	300,000	2,100,000
539	Michigan	Highway Safety Improvement Demonstration Project	98-473	1985		UNK	1993	16,350,000	14,131,124	2,218,876
584	Michigan	Highway Safety Separation Demonstration	98-473	1985		UNK	1993	12,000,000	12,000,000	0
593	Michigan	Traffic Improvement Project - Petoskye, MI-US 31 Bypass	100-202	1988		F-031-7(304)	1996	475,000	475,000	0
								133,363,496	107,375,339	25,988,167
17G	Minnesota	Intermodal Urban Demonstration Project	102-388	1993		IDF-0022-1(75)	1993	60,395,889	4,473,944	55,921,945
619	Minnesota	US-212 from I-494 to West of Chaska, MN	101-516	1991		HDPPE 9116 (001)	1995	1,700,000	1,700,000	0
526	Minnesota	Highway Demonstration Projects	102-143	1992		HDP-9203(001)	1993	9,240,000	6,187,244	3,052,756
								71,335,889	12,361,188	58,974,701
300	Mississippi	Highway Safety and Economic Development Demo Projects	102-143, 388;101-516,164;100-457	1987		HSED-21-1(7-14)	1993	88,089,779	88,089,779	0
619	Mississippi	Feasibility Study/Jackson, MS Airport Access	101-516	1991		HDPPE-9126(1)	1996	255,000	255,000	0
619	Mississippi	Row Aquisition for SR-9 and SR-302	101-164	1990		HDPPE-21-1(16)	1995	2,692,086	2,692,086	0
526	Mississippi	Norrell Road I-20 in Hinds County, MS	101-516	1991		HDP-9111(1)	1995	1,700,000	80,000	1,620,000
526	Mississippi	Pearl River Bridge, Jackson	102-143	1992		HDP-9237(1)	1994	1,600,000	0	1,600,000
541	Mississippi	Highway Study Bridge Study - Greenville	102-143	1992		HDPS-9205(1)	1996	204,000	204,000	0
541	Mississippi	Highway Study Madison County	102-143	1992		HDPS-9204(1)	1996	192,000	192,000	0
590	Mississippi	Accelerated Highway Widening Demonstration Project	98-8	-		HWD-7-1(24-29-31)	1993	33,000,000	31,493,194	1,506,806
								127,732,865	123,006,059	4,726,806

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FEDERAL HIGHW. ISTRATION
MISC. APPROPRIATED (GF) AND MISC. h. / TRUST FUNDS DEMO PROJECTS

AS OF 1/31/94

Appn Code	State	Description/Title	Public Law	Year Auth/ Appn	FTA	Project Number	Est Const. Start	Amount Auth/Appn	Amount Obligated 1/31/94	Total Unobligated Balance
341	Missouri	Multi-Modal Transportation Center, St. Louis	102-388	1993		UNK	1996	640,000	0	640,000
526	Missouri	Telegraph Avenue/I-255 Interchange	102-143	1992		UNK	UNK	40,000	0	40,000
								680,000	0	680,000
341	Montana	I-90 Interchange, Belgrade	102-388	1993		IR90-6(48)298	1996	2,000,000	0	2,000,000
526	Montana	Highway Demonstration Projects	101-516&102-143	1989, 92		HDP-9113(001)	1993	4,461,887	4,041,067	420,820
526	Montana	I-90 Interchange, Belgrade	102-143	1992		IR90-6(48)298	1995	1,200,000	0	1,200,000
526	Montana	US 93 (Native Religious site)	102-143	1992		HDP-9239(001)	1994	100,000	100,000	0
								7,761,887	4,141,067	3,620,820
526	Nebraska	Bridge Between Niobrara, NE and Springfield S. Dakota	102-143	1992		F-14-4(104),HPD-9244(001)	1996	3,200,000	560,000	2,640,000
341	Nevada	Highway Projects	102-388	1993		STPNH-F-IR-015-1(83)	1993	11,460,000	6,000,000	5,460,000
341	Nevada	Highway Projects	102-388	1993		EBF-395-2(21)	1993	2,700,000	2,700,000	0
341	Nevada	Highway Projects	102-388	1993		STP-IR-DE-105(601)	1993	11,460,000	11,460,000	0
516	Nevada	Highway Demonstration Projects -- Preliminary Engineering	101-516	1992		HDPPF-9116(001-002)	1993	2,549,924	2,549,924	0
523	Nevada	Spring Mountain Demonstration Project	101-164	1990		STPNH-F-IR-151(163)	1995	2,193,000	2,193,000	0
526	Nevada	Rail Crossing Caliente	102-143	1992		HDP-9257(1)	1994	1,600,000	268,720	1,331,280
526	Nevada	Highway Demonstration Projects	102-143	1992		EFB-395-2(2)	1993	2,800,000	2,800,000	0
								34,762,924	27,971,644	6,791,280
312	New Jersey	Corridor Safety Improvement Project	100-202	1988		CSIP-0033(156)(160)(165)	1995	49,950,000	44,081,527	5,868,473
341	New Jersey	Rt. 21 Viaduct, Advance Property Acq.	102-388	1993		UNK	1997	2,680,000	0	2,680,000
341	New Jersey	Rt. 21 widening, RR / Highway Br, Newark	102-388	1993		HDP-9114(001)	1996	1,200,000	0	1,200,000
341	New Jersey	I-78 Downtown Connector/Peddie St. Ramp	102-388	1993		UNK	1996	1,504,000	0	1,504,000
341	New Jersey	I-280 Downtown Connector	102-388	1993		UNK	1997	1,200,000	0	1,200,000
526	New Jersey	Raymond Plaza/Penn Station-Newark	102-143	1992	yes	HDP-9250(001),NJ-90-X042	UNK	1,500,000	1,500,000	0
526	New Jersey	Highway Demonstration Projects	102-143	1992		HDP-9247(001)	1993	3,500,000	2,033,341	1,466,659
526	New Jersey	I-280 Downtown Connector-Interim Improvements	102-143	1992		HDP-9246(001)	1997	3,000,000	361,634	2,638,366
526	New Jersey	Route 70/38 Circle Eliminator	102-143	1992		HDP-9251(001)	1996	6,000,000	0	6,000,000
526	New Jersey	Route 21 Widening, Newark	101-516,102-143	1991		HDP-9114(001);DPI-0074(001)	1996	6,468,000	201,248	6,266,752
526	New Jersey	Route 4 Bridge Replacement	102-143	1992		HDP-9245(001)	1995	2,000,000	1,509,600	490,400
526	New Jersey	I-78 Downtown Connector-Newark	102-143	1992		HDP-9249(001)	1998	4,000,000	0	4,000,000
541	New Jersey	Highway Study Route 4/ Route 17 Interchange Bergen Co.	102-143	1992		HDPS-9207(001)	1999	4,000,000	278,800	3,721,200
541	New Jersey	Highway Study - Route 21 Viaduct	102-143	1992		HDPS-9209(001);DPU-0073(001)	1997	2,700,000	60,000	2,640,000
541	New Jersey	Highway Study - Route 208/Route 4 Interchange	102-143	1992		HDPS-9208(001)	1998	4,000,000	0	4,000,000
								93,822,000	50,016,150	43,805,850
304	New Mexico	Nuclear Waste Transportation Safety Demo Project	99-591, 100-457	1987		NWTD(001)	1996	971,200	971,200	0
314	New Mexico	Santa Fe Relief Route	100-45, 100-164, 102-143	1992		HDP-9254(1)	1994	4,628,000	4,628,000	0
314	New Mexico	Highway Demonstration Projects	100-45, 100-164, 102-143	1992		HDP-9254(1)	1994	4,628,000	4,628,000	0
341	New Mexico	Highway Projects	102-388	1993		HDP-9253(2)	1993	4,400,000	0	4,400,000
516	New Mexico	PE Demo - Rail Road Overpass in Las Vegas (NM)	101-164	1990		ROD-7647(6)	1994	1,495,603	132,212	1,363,391
526	New Mexico	Santa Fe Relief Route (By pass)	102-143	1992		HDP-9254(001)	1994	4,800,000	1,153,200	3,646,800
526	New Mexico	Highway Demonstration Projects	102-143	1992		HDP-9255(1)	1993	2,400,000	2,400,000	0
526	New Mexico	Highway Demonstration Projects	102-143	1992		HDP-9252(1)	1993	480,000	463,466	16,534
526	New Mexico	Highway Demonstration Projects	102-143	1992		TPU-HDP-9253(1)	1993	4,320,000	0	4,320,000
								28,122,803	14,376,078	13,746,725
303	New York	Highway-Railroad Grade Crossing Safety Demonstration Project, Mineola	101-164, 101-516, 102-143	1987		DE-4100(001),(002);DEIM-5099(300)	1994	42,254,612	21,280,963	20,973,649
341	New York	Highway Projects	102-388	1993		DE-2(931)	1995	16,000,000	3,975,333	12,024,667
341	New York	Exit 26 Bridge, Schenectady	102-388	1993		UNK	1996	1,280,000	0	1,280,000
341	New York	Design Improvement to Miller Highway, New York city	102-388	1993		UNK	1997	1,698,000	0	1,698,000
400	New York	Mineola Grade Crossing	103-122	1994		UNK	UNK	7,800,000	0	7,800,000
516	New York	Expressway Safety Improvement Demonstration Project	100-457 (330C)	1989		DE-187(931)	1993	2,600,000	2,600,000	0
516	New York	Exit 26 Bridge Project: Schenectady, NY	101-516	1991		UNK	1996	1,700,000	0	1,700,000
522	New York	Corning Bypass Safety Demonstration Project	101-164,516;102-143	1990,91,92		DE-40(802),(804),(801)	1993	49,539,779	49,461,725	78,054
526	New York	Meadowbrook State Parkway	102-143	1992		HDP-9264(001)	UNK	3,600,000	0	3,600,000
526	New York	Exit 26 Bridge Project: Schenectady, Ny	102-143	1992		UNK	1994	3,800,000	0	3,800,000
526	New York	Lake Road Outlet Bridge Irondequoit.	101-516	1991		UNK	1998	4,249,693	0	4,249,693
526	New York	Highway Demonstration Projects	101-516	1989		UNK	1993	425,000	0	425,000
526	New York	Highway Demonstration Projects	102-143	1992		UNK	1993	3,600,000	0	3,600,000
526	New York	Miller Highway from 59th to 72th Street, Manhattan	102-143	1992		UNK	1997	2,800,000	0	2,800,000
526	New York	Mount Vernon Prking Facility	102-143	1992	yes	UNK	UNK	320,000	0	320,000
550	New York	Congestion Mitigation for Syracusen, Ny	103-122	1994		UNK	UNK	1,600,000	0	1,600,000
551	New York	Cross Westchester Expressway I-287	103-122	1994		UNK	UNK	8,800,000	0	8,800,000
552	New York	Exit 26 Bridge	103-122	1994		UNK	UNK	3,200,000	0	3,200,000
								156,065,584	77,318,021	78,747,563

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341	North Carolina	Highway Projects	102-388	1993		NH-26-2(22)	1995	4,640,000	4,640,000	0
526	North Carolina	Highway Demonstration Projects	102-143	1992		NH-26-2(22)	1993	2,560,000	2,560,000	0
540	North Carolina	N.C. Connector – Rocky Mt. To Elizabeth City	102-143	1992		DPI-0199(002),(003),(004),(005)	1996	4,800,000	4,800,000	0
541	North Carolina	Study and Planning of a Bridge from N.C. to Outer Banks in Currituck, Co.	102-388	1993		BRS-0005(35)	2001	150,000	150,000	0
								12,150,000	12,150,000	0
526	North Dakota	Highway Demonstration Projects	102-143	1993		HPD-9243(001)	1995	800,000	800,000	0
313	N. Hampshire(10040-A)	Bridge Capacity Improvements	100-202	1988		NRBD-5315(021)	1998	7,933,000	202,972	7,730,028
519	H. Hampshire(11339-A)	Conway Bypass C US-302/SR-16, NH	101-516	1991		HDPPE-9117(001)	1995	1,700,000	1,700,000	0
								9,633,000	1,902,972	7,730,028
519	Ohio	Hubbard Expressway – Youngstown, OH	101-516	1991		HDPPE-9119(1)	1995	2,549,924	2,549,924	0
519	Ohio	I-680 Access Ramps Youngstown, OH	101-516	1991		HDPPE-9120(1)	1995	1,700,000	0	1,700,000
526	Ohio	Hubbart Expressway – Youngstown	102-143	1992		HDP-9265(1)	1997	3,600,000	0	3,600,000
526	Ohio	Rail Road – Highway Corridor Studies (6)	102-143	1992		HDP-9266(1)	UNK	240,000	240,000	0
526	Ohio	I-680 Access Ramps – Youngstown	102-143	1992		HDP-9267(1)	1995	2,250,000	0	2,250,000
526	Ohio	US-24 from Fort Wayne, IN to Toledo, OH	102-143	1992		HDP-9226(1)	UNK	240,000	240,000	0
								10,579,924	3,029,924	7,550,000
504	Oklahoma	Widen SR-53 at Ardmore Reg Airport	100-457, 101-164	1989		OHWD-1005(100),(101),(104),(105)	1996	2,887,000	1,639,000	1,248,000
526	Oklahoma	Pine Creek – McCurtain County	102-143	1992		HDP-9270(001)(002)	UNK	1,440,000	4,000	1,436,000
526	Oklahoma	Pond Creek Road – Grant County	102-388	1993		HDP-9269(001)	UNK	3,360,000	514,500	2,845,500
526	Oklahoma	Highway Demonstration Projects	101-516	1989		HDP-9116(001)	1993	1,275,000	1,183,800	91,200
526	Oklahoma	Lakeview Road – Still Water, OK	101-516	1991		HDP-9116(001)	UNK	2,550,000	1,183,800	1,366,200
								11,512,000	4,525,100	6,986,900
526	Oregon	Highway 101 Tri-state Feasibility Study	102-143	1992		SCB-000B(001)	UNK	270,000	0	270,000
553	Oregon	Columbia Gorge Highway from Hood River to Mosier	103-122	1994		UNK	UNK	2,500,000	0	2,500,000
341	Oregon	US 101 Scenic Byways Project	102-388	1993		UNK	UNK	1,760,000	0	1,760,000
								4,530,000	0	4,530,000
341	Pennsylvania	Highway Projects	102-388	1993		UNK	1995	9,600,000	0	9,600,000
341	Pennsylvania	US 6 Bypass / Widening, Wysox	102-388	1993		UNK	1994	1,280,000	0	1,280,000
341	Pennsylvania	Highway Projects	102-388	1993		341-0063-066	1995	9,600,000	5,669,000	3,931,000
341	Pennsylvania	US 202, King of Prussia to Montgomery Ville	102-388	1993		UNK	1998	1,440,000	0	1,440,000
341	Pennsylvania	I-81, Exits 43-46	102-388	1993		UNK	1998	2,680,000	0	2,680,000
341	Pennsylvania	Donora Industrial Park Access Road	102-388	1993		UNK	UNK	640,000	0	640,000
342	Pennsylvania	Climbing Lane and Highway Safety	102-388	1993		UNK	1996	3,840,000	0	3,840,000
343	Pennsylvania	Pennsylvania Reconstruction Demonstration Project	102-388	1993		UNK	1997	6,400,000	0	6,400,000
344	Pennsylvania	Pennsylvania Toll Road Demonstration Project	102-388	1993		UNK	1995	3,200,000	0	3,200,000
502	Pennsylvania	Climbing Lane Safety Demonstration Project	102-143;101-164;101-516;100-457	1992		131(132)	1995	15,767,669	900,000	14,867,669
502	Pennsylvania	Climbing Lane & Highway Safety Demonsration Project	102-143	1992		502-131	1995	6,300,000	4,751,585	1,548,415
518	Pennsylvania	Highway Widening Demonstration Project	102-143	1992		G348001	1994	1,800,000	406,160	1,393,840
519	Pennsylvania	Highway Widening Demonstration Project	100-202	1988		0249036	1995	5,467,978	2,984,000	2,483,978
518	Pennsylvania	Highway Widening Demonstration Project	102-388	1993		518	1998	640,000	0	640,000
526	Pennsylvania	Pennsylvania Reconstruction Demonstration Project	101-516;102-143	1992		526-0063	1995	25,099,779	18,007,509	7,092,270
527	Pennsylvania	Pennsylvania Toll Road Demonstration Project	102-143; 101-516	1992, 1991		527-0025-017, 018, 019, 020, 025	1994	6,899,934	6,853,754	46,180
526	Pennsylvania	Pennsylania Quakertown Bypass	102-143	1992		526-9274-001	1995	1,000,000	1,000,000	0
526	Pennsylvania	US-202 King of Prussia and Montgomeryville	102-143	1992		526-9272-001	1998	400,000	0	400,000
526	Pennsylvania	Pennsylvania SR-711 Bypass	102-143	1992		UNK	1996	900,000	0	900,000
526	Pennsylvania	I-81 in Vicinity of wilkes-Barre	102-143	1992		526-9276-001, 002	1995	4,000,000	276,000	3,724,000
526	Pennsylvania	PA North Philadelphia Intermodal Facility	102-143	1992		9275001	1995	4,800,000	80,800	4,719,200
526	Pennsylvania	Pennsylania Center Ave. Extension	102-143	1992		9119001	1995	3,200,000	368,000	2,832,000
526	Pennsylvania	US-6 Bypass in Wysox, Towanda and Tunkhannock Boroughs	102-143	1992		526-9276-001, 002	1994	4,000,000	1,117,515	2,882,485
								118,955,360	42,414,323	76,541,037

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526	South Carolina	Highway Demonstration Projects	101-516	1989		HDP-9120(1)	1993	337,000	337,000	0
341	South Dakota	New Castle - Vermillion Bridge	102-388	1993		UNK	1997	3,296,000	0	3,296,000
526	South Dakota	Highway Demonstration Projects	102-143	1992		HPD-9279(001)	1993	2,560,000	0	2,560,000
641	South Dakota	Vermillion - New Castle Br	102-143	1992		HDPS-9206(1)	1997	32,000	32,000	0
								5,888,000	32,000	5,856,000
341	Tennessee	Highway Projects	102-388	1993		DWSB-3300(15)	1995	320,000	320,000	0
512	Tennessee	Bridge Restoration	100-457	1989		BHR-3300(12)	1995	2,000,000	2,000,000	0
526	Tennessee	Highway Demonstration Projects	101-516	1989		HDP-9122(1)	1993	730,000	730,000	0
526	Tennessee	Highway Demonstration Projects	101-516	1989		GR-HDP-9121(1)	1995	4,249,693	4,249,693	0
541	Tennessee	Highway Study - Interchange-Johnson City	102-143	1992		HDPS-9211(1)	1995	280,000	280,000	0
								7,579,693	7,579,693	0
166	Texas	Railroad-Highway Crossings Demonstration Projects	102-388	1993		UNK	1995	533,333	0	533,333
341	Texas	Loop 375, El Paso	102-388	1993		UNK	UNK	1,600,000	0	1,600,000
514	Texas	International Zaragosa Bridge, El Paso, TX	100-457	1989		IZB-0001(001)&(002)	UNK	3,000,000	3,000,000	0
526	Texas	Texarkana Road Improvement	101-516	1991		HDP-9123(001)	1995	1,445,000	65,040	1,379,960
526	Texas	TX: FM-3464 from Mines Rd to I-35 in Laredo	102-143	1992		HDP-9248(001)	1995	1,600,000	0	1,600,000
555	Texas	Border Highway Project, El Paso, TX	103-122	1994		UNK	UNK	6,400,000	0	6,400,000
697	Texas	Railroad-Highway Crossings Demonstration Project	102-388	1993		UNK	1993	266,667	0	266,667
697	Texas	Railroad-Highway Crossings Demonstration Project	100-457	1989		RR0003(001)	1995	600,000	600,000	0
697	Texas	Railroad-Highway Crossings Projects	103-122	1994		UNK	UNK	14,223,140	0	14,223,140
								29,668,140	3,665,040	26,003,100
309	Utah	Utah Pedestrian Safety Demonstration Project	100-457	1989		DE-0200(603)	1993	542,965	542,965	0
341	Utah	I-15 / University Ave. Interchange, Provo	102-388	1993		UNK	1995	4,240,000	0	4,240,000
526	Utah	5600 West Widening in West Valley City	102-143	1992		HDP-9262(001)	1996	1,600,000	20,000	1,580,000
526	Utah	Highway Demonstration Projects	101-516&102-143	1991, 92		HDP-9124(1)	1995	8,299,693	4,250,000	4,049,693
526	Utah	8th Crossing-Provo and East-West Connector from US Highway 89-189	101-516, 102-143	1991		HDP-9125(1)	1996	5,700,000	120,000	5,580,000
								20,382,658	4,932,965	15,449,693
526	Vermont	Bridge Safety Repair	102-143	1992		HDP-9261(1),(2),(3)	1996	990,000	260,587	729,413
526	Vermont	Highway Demonstration Projects	101-516	1989		HDP-9126(1)	1993	170,000	170,000	0
								1,160,000	430,587	729,413
347	Virginia	Virginia HOV Safety Demonstration Project, I-66	102-388	1993		UNK	1994	1,600,000	0	1,600,000
507	Virginia	Virginia HOV Safety Demonstration Project - I 66	102-143	1992		VHVO-1(4)	1994	2,288,000	2,288,000	0
607	Virginia	Virginia HOV Demonstration Project	100-457;101-164;516,102-143	1989		VHOV-1(1)	1993	500,000	500,000	0
507	Virginia	Virginia HOV Demonstration Project - I 66	100-457;101-164;516,102-143	1989		VHOV-1(1)	1993	500,000	500,000	0
507	Virginia	Virginia HOV Demonstration Project	101-516	1989		VHOV-1(13)	1993	7,244,908	7,244,908	0
507	Virginia	Virginia HOV Demonstration Project	101-164	1990		VHOV-0001(002)	1993	4,629,000	4,629,000	0
507	Virginia	Virginia HOV Demonstration Project	102-143	1992		VHOV-1(4)	1993	5,400,000	2,288,000	3,112,000
526	Virginia	Highway Demonstration Projects I-495 Interchange at Rt 7.	102-143	1992		UNK	1996	1,600,000	0	1,600,000
554	Virginia	Manassas Battlefield Bypass	103-122	1994		UNK	UNK	3,000,000	0	3,000,000
								26,761,908	17,449,908	9,312,000
341	Washington	SR 509, Port of Tacoma	102-388	1993		HDP-7053(001)	1994	1,520,000	1,520,000	0
341	Washington	101 Scenic Byways Project	102-388	1993		SBWA93(001)	1994	1,780,000	1,780,000	0
619	Washington	Highway Demonstration Projects -- Preliminary Engineering	101-516	1991		HDPPE-0124(001)	1993	3,400,000	3,400,000	0
619	Washington	Highway Demonstration Projects -- Preliminary Engineering	101-516	1989		HDPPE-9125(001)	1993	2,550,000	2,550,000	0
526	Washington	Highway Demonstration Projects	102-143&102-388	1992, 93		HPD-9263(001	1993	900,000	800,000	100,000
526	Washington	Marysville/ Tulalip Tribes I-5 Interchange	102-143	1992		HDP-9260(001)	1994	2,720,000	2,720,000	0
526	Washington	Bryden Canyon Bridge Clarkston	102-143	1992		HDP-9264(001)	1996	3,600,000	3,600,000	0
541	Washington	Highway Study-Tacoma Narrows Bridge	102-143	1992		HDPS-9212(001)	1994	460,000	460,000	0
586	Washington	Highway Bridge Relocation Demonstration Project	100-202	1988		BRF-0101(064)	1993	2,470,000	2,470,000	0
								19,400,000	19,300,000	100,000

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510	West Virgina	Corridor H Improvement Project	100–457;101–164,516	1990		UNK	1993	99,171,331	94,803,929	4,367,402
530	West Virgina	Bypass Construction Project	101–516	1990		UNK	1993	42,499,447	38,700,595	3,798,852
341	West Virginia	Appalachian Corridor " L "	102–388	1993		UNK	1995	24,000,000	0	24,000,000
341	West Virginia	Highway Projects	102–388	1993		UNK	1993	80,000,000	5,635,124	74,364,876
519	West Virginia	US 35 from Henderson to I–64, WV	101–516	1991		HDPPE–9127(001);9130(001)	1995	510,000	103,080	406,920
521	West Virginia	Corridor G Improvement Project	101–164,516;102–143	1992		Multiple Projects	1993	191,744,567	124,296,596	67,447,971
528	West Virginia	FBI Complex – Harrison County	102–143	1992		HPDS–9218(001)	1994	9,840,000	471,200	9,368,800
529	West Virginia	Corridor D Improvement Projects, Clarksburg, WV to OH St line	101–516	1991		CHD–0262(105)	1993	9,999,870	2,876,460	7,123,410
541	West Virginia	Highway Study – US Route No. 52	102–143	1992		HPDS–9214(001)	1995	800,000	800,000	0
541	West Virginia	Highway Study – FBI Complex	102–143	1992		HPDS–9216(001)	1994	480,000	480,000	0
541	West Virginia	Highway Study – Route No. 2	102–143	1992		HPDS–9213(001–004)	1995	2,080,000	1,638,772	441,228
541	West Virginia	Highway Study – Route No. 9	102–143	1992		HPDS–9215(002–005)	1994	1,040,000	1,040,000	0
547	West Virginia	Corridor L	103–122	1994		UNK	UNK	54,000,000	0	54,000,000
								516,165,215	270,845,756	245,319,459
528	Wisconsin	Eight Street Bridge Crossing–Sheboygan	102–143	1992		HDP 9214(001)	1994	6,560,000	6,560,000	0
536	Wisconsin	Ramp Relocation and Reconstruction (I94) Milwaukee, WI	101–516	1991		UNK	1996	10,200,000	0	10,200,000
								16,760,000	6,560,000	10,200,000
528	Wyoming	Highway Demonstration Projects	102–143	1992		HDP–9236(001)	1993	4,800,000	2,597,732	2,202,268
		TOTAL MISCELLANEOUS APPROPRIATED (GF) AND MISCELLANEOUS HIGHWAY TRUST FUNDS DEMO PROJECTS						2,159,858,424	1,159,282,600	1,000,575,824

SOUTHWEST BORDER INFRASTRUCTURE STUDY

Mr. COLEMAN. I would like to raise an issue concerning the study released by the Department entitled "Assessment of Border Crossings and Transportation Corridors for North American Trade." The report highlighted several findings and recommendations. I was disappointed that among these was not a recommendation for a separate funding source for infrastructure projects. I reject the finding that the present border ports of entry have adequate facilities to handle projected increases in border traffic.

How does the Federal Highway Administration propose to address the increased levels of trade expected between the United States, Mexico, and Canada?

[The information follows:]

The finding contained within the referenced report is consistent with the April, 1993 congressionally required GSA report "5-Year Capital Improvement Plan for Southwest Border Stations." The GSA assessment was based on U.S. Customs projections of traffic demand at border stations, based on historic growth rates and assumptions regarding future rates. These estimates were adopted for the DOT study, and were discussed and validated at a series of regional public meetings attended by local trade and traffic experts. For the southwest border, these included meetings at Laredo, TX; San Antonio, TX; Las Cruces, NM; Tucson, AZ; and San Diego, CA.

The DOT report clearly states that infrastructure investment is needed for border approaches, for connections to the core U.S. transportation system, and for intermodal connections. There is convincing evidence, however, that the capacity of border stations, themselves, is adequate for the task of accommodating any reasonable expectation of trade increase. All indications suggest that operational improvements and other productivity and staffing measures, combined with strategic investments in border approaches and new facilities, will be more than adequate to meet anticipated trade needs.

Mr. COLEMAN. One finding asserts that the states do not allot sufficient funds to border communities for improvements to border crossing approaches while another indicates that new sources of infrastructure funding appear necessary. I would like to recommend that the federal resources be targeted directly to border communities.

How can the Federal Highway Administration assist border communities which must compete in state distribution formulas which traditionally have ignored them?

[The information follows:]

The Department will conduct a comprehensive assessment of border infrastructure requirements prior to developing program and legislative options for addressing these needs. Full funding, earmarking, separate programs, setasides, and other program delivery methods will be considered, as appropriate to the level and distribution of the needs that are identified as part of the comprehensive assessment.

The completion of the section 6015 report was the first step in recognizing the national importance of border stations and international gateways. The creation of multistate and binational planning efforts, and the development of trade corridor coalitions is an indication that states are beginning the process of recognizing these concerns. The national exposure brought about by the report provides a strong point of departure for federal/state/local coordination to address these concerns.

Mr. COLEMAN. How do the National Highway System recommendations recently submitted to the Congress reflect the Department's commitment to infrastructure development along the southwest border with Mexico?

[The information follows:]

Instructions to the states in their selection of routes for inclusion on the NHS called for consideration of border crossings and specifically directed that all major crossings be connected to the system. Twenty-one border crossings along the southwest border and 32 along the U.S./Canadian border are included in the NHS submittal.

CATHODIC PROTECTION

Mr. COLEMAN. In the report accompanying the fiscal year 1994 Transportation Appropriations bill, the Committee urged the Federal Highway Administration to make cathodic protection part of the planning, specifications and engineering—PS&E—approval for bridge deck overlay projects where salt contamination is present.

FHWA has repeatedly stated that cathodic protection is the only technique that can stop corrosion in salt-contaminated bridge decks. FHWA has also conducted extensive research and demonstration projects to convince State DOTs to utilize this technology. In spite of these efforts by FHWA, however, only a limited number of bridge deck rehabilitations use cathodic protection. As a result, we are spending millions of taxpayer dollars to repair bridge decks that we know will quickly deteriorate, and our national bridge needs continue to grow faster than the resources we can allocate to fix them.

It is my hope, and the desire of this Committee, that FHWA would take further steps to see that cathodic protection is utilized on projects where its use is appropriate. I was therefore dismayed to learn in a letter of December 29, 1993, that the FHWA regarded our report language as "only advisory" and that FHWA would not be taking any steps to further address this situation.

FHWA has the responsibility to provide for the cost-effective and efficient expenditure of transportation funds. There are a significant number of bridge decks in the northern one-third of the U.S. and along the coastal areas, including in my own state of Texas, where cathodic protection should be utilized as the most cost-effective option.

How many of our bridges are deficient? Of the deficient bridges, what portion is deficient because of corrosion?

[The information follows:]

There are 111,911 structurally deficient bridges and 79,721 functionally obsolete bridges listed in the National Bridge Inventory. Of those that have structural deficiencies, there are 32,100 steel, R/C and PS/C bridges shown as having deck problems. From this same group of bridges, 40,200 have substructure problems. Since deficiencies in decks and substructures are very likely to be corrosion related, there are almost certainly about 30,000 bridges with deck deterioration resulting from corrosion and the same number with corrosion-damaged substructures. It is also very probable that both categories of deficiency exist in the same bridge.

BRIDGE DECK REHABILITATION PROJECTS

Mr. COLEMAN. What percentage of the bridge deck rehabilitation projects involves a corroded bridge deck?

[The information follows:]

Approximately 90 of the bridge deck rehabilitation projects involve corroded bridge decks.

Mr. COLEMAN. When an overlay is applied to a corroded bridge deck, how long before the deterioration will begin to affect the overlay/rehabilitated bridge deck?

[The information follows:]

The performance of the bridge deck, even after the application of an overlay, will depend on several factors: the concrete quality, the extent and degree of deterioration, and the amount of chlorides still present in the concrete at the level of reinforcing steel. The quality of the overlay also has a very large effect upon continued deck performance. Assuming a deck in sufficiently good condition to warrant an overlay and a well-designed and properly applied overlay that will prevent an increase in chloride concentration, it will take from 5 to 20 years for corrosion-induced problems to reappear.

CATHODIC PROTECTION FOR BRIDGE DECK PROJECTS

Mr. COLEMAN. What is the expected life of a salt contaminated bridge deck after receiving an overlay? What is the expected life of the same bridge deck if it receives an overlay with cathodic protection?

[The information follows:]

As noted in the previous response, the life of a salt-contaminated deck will depend upon the condition of the deck and the quality of the overlay, with 5 to 20 years expected if the work has been done properly. If both cathodic protection and an overlay are properly applied, the life of the deck should be as long as the anode lasts plus several years. After that, the deck will be no worse than it was when cathodic protection was applied. This would mean from 25 to 35 years.

Mr. COLEMAN. Does FHWA believe that the annualized cost of an overlay with cathodic protection is less than the cost of an overlay without cathodic protection?

[The information follows:]

In a hypothetical situation as proposed, there are any number of answers depending on the assumptions, especially the harshness of the environment, and the extent of salt contamination. However, given that a bridge is located in a harsh environment due to the use of deicing salt/sand has a deteriorating deck, the cost of cathodic protection installation and operation could be more than recaptured by way of reduced annual costs, especially if user costs due to reconstruction are included. However, a case-by-case analysis is necessary as this is not a "one size fits all" situation.

Mr. COLEMAN. Some salt-contaminated bridge deck projects are not appropriate for cathodic protection because, for instance, the bridge may be scheduled for replacement. Are there, however, also a number of bridge deck rehabilitations where cathodic protection should be utilized?

[The information follows:]

Yes, and the number is much higher than the number of bridges with structurally deficient decks. A reasonable estimate is about 200,0000 bridges that could be analyzed to see if cathodic protection is appropriate.

Mr. COLEMAN. Does FHWA believe that the use of cathodic protection on bridge deck rehabilitation projects, where appropriate, would help preserve our bridge infrastructure in a cost-effective manner?

[The information follows:]

Yes, the use of cathodic protection on appropriate bridge deck rehabilitation projects would definitely help preserve our bridge infrastruture in a cost-effective manner.

Mr. COLEMAN. What incentives are there for state DOTs to utilize cathodic protection and extend the life of a bridge deck for 30 to 35 years?

[The information follows:]

The best and most obvious incentive is the prospect of a sound bridge deck without rehabilitation for 30 or more years. There are, however, other incentives such as eligibility of Federal-aid funds in installation of cathodic protection, and technical assistance from FHWA's Offices of Engineering and Technology Applications. Along these lines, the AASHTO/AGC/ARTBA Task Force 29 is developing new criteria for application of cathodic protection.

Mr. COLEMAN. While FHWA has undertaken extensive efforts through research and demonstration projects over the past two decades, utilization of cathodic protection remains limited. What further steps does FHWA intend to take to promote the use of this technology?

[The information follows:]

Require all state DOT's to have a bridge management system. This will create a systematic process that will force the bridge manager to look at the best alternatives that will realize the most benefits. Other things that FHWAS is doing to help promote cathodic protection are: Implementation of SHRP products for cathodic protection; Continuing to work with the private sector and the corrosion associations; Sponsoring international conferences on cathodic protection and corrosion; Holding open houses during the construction of cathodic protection installation for viewing by other states; Continuing financial and technical assistance under DP#91; and Assistance in developing a cathodic protection training course for nationwide use.

AVENUE OF THE ARTS/METROPOLITAN PLANNING ORGANIZATION

Mr. FOGLIETTA. Mr. Slater, I am from the city of Philadelphia, a large, older city, with extremely congested highways and severe air quality problems.

One thing we have seen in Philadelphia time and time again is that when we increase capacity on our highways by adding new lanes and miles, we see an immediate increase in volume. And the gridlock and pollution continues. It seems to me that the best way to solve this problem for the future is to get people out of their cars and on to public transportation.

Some might say that is in conflict with your role as Federal Highway Administrator. I believe it is absolutely consistent with your role as the Highway Administrator to work to improve public transit.

I am very interested in using transportation investments to leverage jobs and economic development, especially in disadvantaged communities. In Philadelphia, we have a project called Avenue of the Arts, which is on the federal-aid highway system and is on the proposed National Highway System. It is a project to redevelop an area to make it a thriving arts and cultural center. Further, it will create jobs and rebuild a distressed area.

Can you tell me how you use economic development and job creation to evaluate and prioritize projects like Avenue of the Arts?

[The information follows:]

The Federal Highway Administration does not establish priorities for funding individual projects. The highway program funds administered by FHWA are distributed to the states for use in carrying out state and local programs. Priorities for federal funding in a metropolitan planning area are established through the required metropolitan transportation planning process which is carried out by the metropolitan planning organization (MPO) in cooperation with the state and the transit operator.

The ISTEA legislation and implementing planning regulations identify specific elements and considerations which must be addressed in the metropolitan and statewide transportation planning processes. Consideration of several of these elements, e.g., the likely effect of transportation policy decision on land use and development and the overall social, economic, energy and environmental effects of transportation decisions, require comparison to and/or analysis of the effect of proposed transportation improvements on metropolitan and local community goals and plans for economic development, employment, housing, etc. The specific contribution of such projects to the economic development of individual metropolitan areas is hard to assess. Typically, analytical tools from economics and regional science can be utilized to assess the economic benefits of alternative investments. These analytical efforts are most successful, however, where an existing community development plan or program defines the criteria and objectives that can be utilized as benchmarks in assessing the pay-offs from alternative investments. Hence, the transportation planning process, in seeking to assess the value of alternative transportation projects, must address existing community plans and programs that seek to support economic and social development. Within this context, supported by appropriate technical analyses, the job creation and economic development potential of alternatives can be framed for local and state decision makers. The FHWA and FTA have research and technical assistance efforts under development which will produce guidance to assist state and local officials in conducting these analyses and making investment decisions.

The metropolitan planning process is required to be an open process which provides opportunities for the public as well as interested agencies and groups to participate in the planning process and to comment on proposed transportation plans and improvement programs. Advocates of projects, like the Avenue of the Arts, can be most effective by directing their efforts at making their views known to the MPO and seeking opportunities to be involved in the metropolitan planning process.

USE OF HIGHWAY FUNDING ON CURB CUTS

Mr. FOGLIETTA. On another matter, cities across the country are struggling to cope with the burden of unfunded federal mandates. The costs of compliance are costing cities, big and small, billions of dollars.

In Philadelphia, thousands of curb cuts are required by the ADA at an estimated cost of over $80 million.

Do you have any thoughts on possibly expanding the use of federal highway funding to help cities cope with these mandates?

[The information follows:]

Reduction of unfunded mandates is a priority in this administration and is the focus of Executive Order 12875, "Enhancing the Intergovernmental Partnership", issued October 28, 1993. The FHWA is examining its actions to ensure compliance with this order. At this point, we are not proposing modifications to law to change the eligibilities of federal-aid highway funds.

CMAQ FUNDING

Mr. FOGLIETTA. As a Pennsylvanian, I am also concerned about issues impacting the other side of our state. In Pittsburgh, there is a matter which seems to send the wrong message to cities across the country. After 50 years of working to improve air quality, Pittsburgh is finally coming into compliance with Clean Air Act standards. However, because they have been successful, they are now faced with being rewarded by losing their CMAQ funding, nearly $38 million.

Does this seem fair to you and what do you propose cities like Pittsburgh do in the absence of this funding to stay in compliance?

[The information follows:]

The apportionment formula for the distribution of funds under the Congestion Mitigation and Air Quality Improvement (CMAQ) Program is explicit in section 1008 of the ISTEA. Only those populations that are in nonattainment areas classified as marginal or worse under the Clean Air Act are included in it and therefore contribute to a state's share of the yearly apportionments. The reduction in a state's CMAQ apportionment is inevitable after one of its nonattainment areas is redesignated to a maintenance area without a legislative change. The air quality provisions of the ISTEA are focused on brining nonattainment areas into attainment rather than maintaining the standards.

The state, however, may not lose federal funds overall. The Federal Highway Administration has conducted a preliminary analysis on four case studies to determine the impact on overall funding of an area's redesignation. In each of the four cases, the projected loss in CMAQ apportionment was wholely compensated by an increase in the "Hold Harmless" funds under Title 23 of the United States Code. So even without a legislative change, it is currently possible for the State to insure that an area has sufficient funds to continue to fund emissions-reducing transportation projects after redesignation. FHWA intends to expand this analysis to other areas.

Another alternative would be to use a portion of the state's funding under the Surface Transportation Program (STP). Eligible activities under this funding program include transportation control measures that are listed in the Clean Air Act under section 108(f). These include: improved public transit, employer trip reduction programs, bicycle and pedestrian improvements and other projects thought to have an emission reduction impact.

JUSTIFICATIONS

INTELLIGENT VEHICLE-HIGHWAY SYSTEM

Mr. CARR. The request budget includes $165,810,000 for the intelligent vehicle-highway system program under the limitation on general operating expenses. This is in addition to the $113,000,000 in contract authority available under ISTEA. Under LGOE, the $75,510,000 increase represents 83.6 percent. This means that the IVHS program accounts for nearly 60 percent of the total increase requested under the general expenses limitation. What was the Department's request to the Office of Management and Budget for the IVHS program?

[The information follows:]

The Department requested $115,810,000 to the Office of Management and Budget for the IVHS program.

RESEARCH AND DEVELOPMENT

Mr. CARR. In the research and development activity, the budget request is $38,510,000, an increase of $10,500,000 above the 1994 level. In general, how is the IVHS research and development effort managed? Do you look to the near term and try to emphasize getting technologies in operational tests quickly, or do you look more to the long term and try to build the basis for an integrated, cohesive, cost-effective national program?

[The information follows:]

The R&D program is intentionally designed to cover the scope of needs ranging from near term early payoff to longer term, potentially high payoff research opportunities. The shorter term research products are candidates for current operational tests which generally focus on recently developed technologies and new combinations of existing technologies in operational settings. The federal R&D role is also one of developing a broad underlying factual basis for issues, problems and potential new technologies and systems related to the IVHS program. Many, if not most of our major R&D efforts, actually have outputs which range across the time spectrum from near term to future.

An example of R&D on a broad underlying need are the many geographic databases now being developed in the US using GPS/GIS. The several IVHS subsystems and the several transportation modes will require somewhat different subsets of geographic information. FHWA R&D has embarked on an effort involving a major set of national interests to develop requirements for a map database standard, taking account of different needs and incorporating the ability to translate a common database into forms useful for the particular application whether it be vehicle navigation, highway maintenance operations, police dispatching, or transit fleet operations. A similar example is automatic vehicle identification (AVI), which is needed for many IVHS applications. Several different, and incompatible, commercial systems are being marketed. FHWA is performing R&D to define the requirements for a national AVI standard.

An example of a longer term need is for a method of updating in essentially real time the navigation advice provided to drivers and the predicted flows used for traffic signal settings. Obvious situations would include where an incident, such as an accident, blocks part of a major facility and it is desired to redistribute traffic on the remaining parts of the network. It will be possible to do this in the future when a substantial number of vehicles are equipped with in-vehicle navigation systems and traffic management centers will be able to rapidly recalculate traffic signal settings in response to changing conditions. Consequently, FHWA R&D is undertaking a broad national effort to develop a method for dynamic traffic assignment, i.e., the computer model and software which will calculate the optimum distribution of traffic along the links in a network, based on the known or estimated locations and destinations of vehicles currently in the network.

IVHS RESEARCH PRIORITIES

Mr. Carr. Also explain the process by which the FHWA determines research priorities. For example, does each element of the IVHS program, such as commercial vehicle operations, advanced traveler information systems and advanced traffic management systems receive an allocation of the total to be awarded at the discretion of that program manager, or do proposals from the various elements have to compete with each other?

[The information follows:]

Each year's research program is developed through an intensive review of project research needs and priorities. Several sources of priority of needs are considered including: program recommendations by IVHS America; national program plans: recommendations from individual IVHS America committees; staff interactions with the IVHS community and other TRB and professional societies and committees, etc.

The principal means by which these many priorities are examined and molded into the annual program is the FHWA IVHS Research and Technology Coordinating Group. Its first level of deliberations begins with an IVHS Working Group composed of division chiefs, branch chiefs, and representatives of the technical staffs of FHWA R&D and headquarters program offices, including but not limited to: the IVHS program office, safety, motor carrier, and technology transfer. This group reviews proposed research studies for the fiscal year in question and, through a series of meetings and iterations, presents a proposed program to the IVHS Research and Technology Coordinating Group, consisting of office directors from R&D and the relevant headquarters offices (IVHS, safety, motor carrier, etc.) as well as a representative from one of FHWA's regional field offices. This group reviews the proposed program and, usually after one or more rounds of modifications, presents and defends the program to the Research and Technology Executive Board, made up of all the Associate Administrators in FHWA headquarters and chaired by the FHWA Executive Director.

In the deliberations of the various groups, proposed studies in the different IVHS elements compete with each other for priority within the framework of an assumed budget level. Lower priority studies for which there does not appear to be sufficient funding are either deleted or deferred for consideration to subsequent fiscal years. Because there are so many high priority studies that cannot be postponed, we have had to have recourse to split funding many studies so that the work can be initiated sooner.

RESEARCH AND DEVELOPMENT FUNDING

Mr. Carr. In 1992, 1993, and 1994 to date, how much of the total research and development funding has been awarded competitively and how much by sole source?

[The information follows:]

In fiscal year 1992, approximately $15.4 million worth of contracts were awarded on the basis of competitive procurements. Interagency transfers, programs such as the Small Business Innovative Research program (SBIR), Transportation Research Board (TRB) support, etc. amounted to $6.0 million (of which $1,275,000 went to

AHS-related work). No sole source awards in response to unsolicited proposals were made to private industry.

In fiscal year 1993, competitive awards totaled $32.5 million (including minor contract modifications and split funded prior year awards); $14,080,000 of this was for AHS precursor systems analysis contracts. Interagency transfers, TRB and SBIR amounted to approximately $10.1 million. Again, no sole source awards were made in response to unsolicited proposals.

Thus far in fiscal year 1994, competitive awards have totaled $2.2 million and other awards are $1.9 million to federal or national laboratories.

In addition to specifically identifying AHS funding, it should be noted that these figures cover R&D in ATMS, ATIS, CVO, and some infrastructure-related AVCS.

Mr. CARR. Who makes decisions regarding whether or not a contract is competitively bid and how are those decisions made?

[The information follows:]

Contracts are normally competitively bid. Where it can be justified on the basis of demonstrated expertise and experience, work may be set aside for a federal laboratory. Where a good deal of objectivity or contact with the highway community is needed, TRB may be called upon to manage an activity. Where a state possesses some unique facility, expertise, and a willingness to contribute its facilities and resources toward a cooperative activity, a sole source agreement with that state is negotiated.

The recommendation for these types of sole sourcing usually originates with the technical staff, is subject to the approval of the Director of the Office of Safety and Traffic Operations R&D, and is ultimately subject to the approval of the FHWA contracting officer.

HUMAN FACTORS STUDY ON ENHANCED VISIBILITY

Mr. CARR. How much funding will be devoted in 1995 to a "cross cutting study in human factors that will address human factors issues related to systems which enhance visibility under adverse conditions?" Exactly what are you trying to learn and how does it relate to IVHS?

[The information follows:]

The study addressing the above issues is entitled "Enhanced Display of Highway Environment" with a planned budget of $1,500,000.

Systems that enhance the display of the highway environment offer great promise for improving highway operations, especially at night or under degraded driving conditions. Rather than selecting promising technologies (e.g., radar or infrared) and determining how they may be used in the driving environment, this study will first determine driver information requirements and problem areas. In addition, enhancement technologies and their interfaces to the driver must be fully integrated with other proposed IVHS in-vehicle systems. This study will build on the results of ongoing human factors research in the design of Advanced Traveler Information Systems (ATIS) for private and commercial vehicles (Human Factors in ATIS and CVO Design Evolution Contract). The product of this study would be empirically-based human factors guidelines that include the integration of enhancement technologies in the design of in-vehicle controls and displays, with special emphasis on commercial vehicle cabs.

SAFETY EVALUATIONS OF IVHS TECHNOLOGIES

Mr. CARR. Approximately 25 percent of the R&D total, or $10,000,000 is requested as a pass through to the National Highway Traffic Safety Administration (NHTSA) to allow NHTSA to conduct safety evaluations of promising IVHS technologies. Why shouldn't these funds be included in the NHTSA budget?

[The information follows:]

The budget request to support NHTSA research is intended to continue to respond to direction first provided by the Senate Appropriations Committee in fiscal year 1993. These funds *could* be included in the NHTSA budget request, in fact, we have been transferring these funds to NHTSA via interagency agreements. From the perspective of the IVHS program it is important that these funds be provided either here or directly to NHTSA for the safety evaluation of operational test projects and NHTSA research supporting the AHS program.

Mr. CARR. NHTSA's own budget also includes funding for IVHS related research. How are decisions made whether to include the funding in NHTSA's or FHWA's budget?
[The information follows:]

As stated in the previous answer, it is important that funds be provided to NHTSA for the safety evaluation of operational test projects and NHTSA research supporting the AHS program. However, since the IVHS program is a DOT initiative, the source of funding from these activities could come either directly from NHTSA or through the FHWA budget.

OBLIGATIONS OF THE 1994 RESEARCH PROGRAM

Mr. CARR. For the record provide the amount of obligations to date for the 1994 research program and include planned obligations by month for the balance of the year.
[The information follows:]

The amount of obligations to date for the fiscal year 1994 research program are $4,152,000. Obligations for the remainder of the fiscal year by month are very difficult to determine as the time between R&D's submittal of a procurement request (PR) and award of a contract is unpredictable to the month, depending, among other things, on: the workload in the Office of Contracts and Procurement at the time the PR is received; the type of procurement (competitive, interagency agreement, etc.); and the magnitude and complexity of the requirement (which affects the time needed for proposal submission, review, and negotiations).

However, our best estimate of monthly obligations for the remainder of fiscal year 1994 is as follows:

March	$900,000
April	2,100,000
May	2,600,000
June	2,400,000
July	[1] 4,100,000
August	4,500,000
September	7,000,000

[1] + $10,000,000 AHS Consortium.

RECIPIENTS OF IVHS R&D FUNDING

Mr. CARR. Also provide, for fiscal years 1992, 1993, and 1994 to date, information showing the 25 recipients of the most funding under the IVHS research and development program.
[The information follows:]

FHWA/IVHS 25 Largest R&D Recipients
Fiscal Years 1992,1993 and 1994
(Awards as of 05/05/94)

Contractor		Amount
BATTELLE		6,952,337
NATIONAL ACADEMY OF SCIENCES		6,305,191
TRB Correlation Svcs	3,805,191	
IVHS IDEA	2,500,000	
HONEYWELL		5,978,575
TEXAS A&M RESEARCH FOUNDATION		5,350,000
FARRADYNE		5,200,000
DEPARTMENT OF ENERGY (National Labs)		5,137,000
UNIVERSITY OF MICHIGAN		5,000,000
VIRGINIA POLYTECHNICAL UNIVERSITY		5,000,000
INFORMATION DYNAMICS		4,533,449
GEORGIA TECH RESEARCH CORP.		4,216,359
CALSPAN CORPORATION		3,054,137
DELCO ELECTRONICS CORPORATION		3,009,712
LORAL AEROSYS		2,942,679
UNIVERSITY OF CALIFORNIA		2,361,821
SAIC		2,169,621
KAMAL SCIENCES CORPORATION		2,007,445
U.S. DEPARTMENT OF COMMERCE (Federal Labs)		1,950,000

RAYTHEON COMPANY	1,789,994
BALL ENGINEERING	1,610,000
VERAC, INC.	1,492,322
HUGHES	1,430,217
JHK	1,373,501
JOHNS HOPKINS UNIVERSITY (Applied Physics Lab)	1,010,000
KLD	880,000
CAMBRIDGE SYSTEMATICS	823,997

The figures above represent awarded contract amounts, some of which have not yet been obligated.

Just for interest, these are the next nine:

ROCKWELL INTERNATIONAL CORP.	623,451
BDM FEDERAL, INC.	499,658
MARTIN MARIETTA CORPORATION	313,404
THE ANALYTIC SCIENCES CORP.	264,993
SRI INTERNATIONAL	228,878
VENDOR OF MATERIALS (Various equipment purchases)	227,712
TRW INC.	208,865
NORTHROP CORPORATION	208,368
UNIVERSITY OF TEXAS	125,000

IVHS OPERATIONAL TESTING PROJECTS

Mr. CARR. The budget request for IVHS operational testing doubles from $15,000,000 in 1994 to $30,000,000 in 1995. According to the justifications, based on responses to an open solicitation during 1992, sixteen new operational tests were selected for support in 1993. Provide a listing of these sixteen new projects, along with estimated funding, by year, total estimated cost, location, and reason selected.

[The information follows:]

[Notes: After project name and location, the first figure in the listing is the federal IVHS funding, and the second figure is the anticipated total funding. Sufficient federal fiscal year 1993 IVHS funds were reserved to fully carry out all projects (i.e., approvals were not made based on anticipated availability of future funds). Funding for most projects was obligated during fiscal year 1993, with the remaining obligations occurring in fiscal year 1994. Brief descriptions of projects highlight key features and evaluation goals which contributed to project selection.]

NY City Metropolitan Transportation Authority Travel Information System Test (New York): $2,950,000 ($5,900,000) The project will test the effectiveness of methods to provide comprehensive information at bus stops and on-board busses. The system would concentrate on heavily-traveled routes allowing for an effective and reliable evaluation in a large scale system. the New York City transit system is well-suited for this purpose.

Washington DC Surveillance Test (DC Metro Area): $5,511,733 ($7,169,420) The operational test will evaluate the use of the Bell Atlantic cellular telephone infrastructure with passive statistical cellular and cellular geolocation technologies to estimate traffic congestion information and identify incidents. Currently, transportation management agencies expend large amounts of funds to monitor a limited number of freeway segments through techniques such as in-payment detectors and closed-circuit television cameras. If successful, this project will provide a cost-effective alternative for wide-area monitoring of traffic conditions.

SMART Card Bus Fare Collection Test (Delaware): $1,191,424 ($2,382,848) The Smart DART project will test the use of "smart cards" for fare collection on Wilmington's entire transit system. The introduction of multi-use/multi-modal payment mechanisms for transportation services; including toll collection, transit fares, and parking fees; will ease user choice and increase the efficiency of funds administration by public agencies.

Minneapolis/St. Paul Personal Communication Device Test; "Genesis;" (Minnesota): $2,400,000 ($3,200,000) Genesis will evaluate the value of a portable digital personal communications device (PCD) in improving transportation service. The PCD will provide users with real-time, route-specific information on operation conditions of highway and mass transit systems, along with other types of personal use information. The Minnesota Guidestar program provides an effective site for testing the value of PCDs in improving transportation service in a multimodal setting.

Minneapolis/St Paul Transit Information System Test; "TravLink;" (Minnesota): $3,571,000 ($5,762,000) The TravLink project along the I–394 corridor will provide real-time transit schedule and traffic information through a combination of kiosks and audiotex/videotext at work, home, shopping, and transit stations. In-home terminals supplied by US West under an existing project will be used. The infrastructure in the Minneapolis area provides excellent evaluation and integration opportunities with other on-going activities such as high occupancy vehicle lanes, timed-transfer transit service, downtown transit centers and commuter connections, park-n-ride lots, ramp metering, reduced-rate carpool parking, transportation management organizations, and the traffic management center.

On-Board Automated Mileage/Stateline Crossing Test (Iowa, Minnesota and Wisconsin): $1,068,239 ($1,618,974) This three-state effort will test and evaluate the effectiveness of using the global positioning system and first generation on-board computers to record miles driven within a state for fuel tax allocation purposes in a manner acceptable to state auditors. This will streamline reporting requirements imposed on commercial motor carriers, and increase the efficiency of administrative processes within state agencies.

San Antonio Advanced Traffic Management System Test (Texas): $899,654 ($1,298,466) Texas Department of Transportation is installing an advanced traffic management system in San Antonio which will use state-of-the-art, digital communications. Traffic control systems have traditionally used older analog communication systems, and this is the first traffic control system installation using digital communications technology. The operational test is evaluating this digital communication network, designed for transportation management, for cost effectiveness and benefits versus more traditional transportation data communication systems.

Bus Transit Travel Time Information System Test (Colorado): $1,000,000 ($2,000,000) The project will evaluate the impact of real-time travel information on traveler mode choice along routes I–25 and US 36 north of Denver. Proposed information delivery systems include changeable message signs in advance of park-and-ride facilities, highway advisory radio, and video-display terminals at key, high-use park-n-ride lots, bus transfer facilities, the new Denver International Airport, light rail stations, and at company work sites.

Dynamic Truck Speed Warning for Long Downgrades (Colorado): $195,000 ($250,000) The project is evaluating use of weigh-in-motion truck scales linked to variable message signs to inform individual trucks of safe operating speeds on a long downgrade on westbound I–70 near the Eisenhower tunnel. Based on a truck's weight and other dynamic factors, a recommended safe speed will be calculated and provided to the driver via the variable message sign. The project will evaluate the safety effectiveness of providing this information for trucks negotiating a steep downgrade.

Integrated Freeway Ramp Metering and Adaptive Arterial Signal Control Test (California): $2,617,000 ($3,337,000) The test will evaluate the operational effects of balancing traffic flow between Interstate I–5/I–405 and the parallel arterial streets near Disneyland, the stadium and Convention Center in Anaheim. The test will also demonstrate the effectiveness of a collaborative action on the part of transportation management agencies to optimize their strategies to improve traffic flow. The existing freeway and arterial control infrastructure in the Anaheim area is extremely well-equipped to host this test of advanced traffic control.

Adaptive Traffic Signal Control System Test (California): $1,156,647 ($2,271,147) This project will evaluate advanced signal control algorithms against more traditional control software. The advanced system to be used automates the data collection process and then automatically optimizes traffic signal timing plans based on real-time conditions, and implements the timing plans on a cycle-by-cycle basis. The existing traffic management system infrastructure in Anaheim offers an excellent test site to evaluate traditional and advanced traffic signal control strategies, especially when applied to the numerous special events which take place in and around the city.

Smart Call Box Test (California): $915,000 ($2,260,200) This project will evaluate the use of the existing motorist aid call box system for other traffic management strategies. The test will evaluate the cost-effectiveness of converting existing cellular-based call boxes to transmit the data necessary for traffic monitoring, incident detection, hazardous weather detection, changeable message sign control, and CCTV control.

Mobile Communication System Test (California): $3,000,000 ($4,000,000) This test will evaluate use of a portable detection and surveillance system for highway construction, special events, and incident locations. A number of mobile systems will be installed on special trailers which will be strategically placed at temporary traffic congestion locations in Orange County. The trailer-mounted video image detectors will transmit real-time data and video to a control center. Positive results will provide needed flexibility in responding to temporary transportation management needs in a cost-effective manner.

Spread Spectrum Radio Traffic Signal Interconnect Test (California): $2,600,000 ($3,500,000) This project is to evaluate the use of the "spread spectrum" radio communication technique for interconnecting traffic signals to a central control computer. This system will be compared to traditional approach of using costly buried wire interconnect systems, and the evaluation will measure the operational characteristics and costs of the spread spectrum communication system.

San Francisco Bay Area Intermodal Traveler Information System Test (California): $2,500,000 ($4,211,500) The "TravInfo" project will implement a comprehensive, region-wide traveler information system. The project includes the development and operation of a multi-modal transportation information center that will integrate and disseminate transportation information to the general public, public agencies and commercial vendors. An open access architecture will be implemented for all aspects of the information system, to provide for future growth and transfer of technology to other regions. We hope to facilitate an active market for travel information within this project, greatly leveraging the value of information currently being collected by public agencies.

Storm Warning System Test (Idaho): $804,500 ($1,231,000) This project will test three sensor systems which measure visibility during blowing dust and snow situations. Information will be automatically transmitted to two overhead signs to warn motorists. Motorist response and safety improvements will be evaluated during the test.

EMERGENCY NOTIFICATION AND PERSONAL SECURITY SYSTEMS

Mr. CARR. Among planned accomplishments for 1994 is "testing of emergency notification and personal security systems." What exactly is the aim of this work and how much money is devoted to it in 1994?

[The information follows:]

These systems will allow travelers to notify assistance centers of the need for help. Two-way communications capability will allow the assistance provider to respond to the traveler, acknowledge the assistance request and inform the traveler that help is on the way. Key aspects of such systems would include the ability to locate the requestor. This IVHS user service area is intended to speed the detection of and response to non-injury incidents on the highway. This area was included in the open solicitation for operational test proposals which were due to US DOT in early January 1994, and we have not yet finalized selection of proposals. In preliminary estimates, however, it appears that federal IVHS obligations for these systems would be in the range of three to four million dollars in fiscal year 1994.

RURAL IVHS SYSTEMS

Mr. CARR. What portion of the operational testing budget in 1993–1995 is targeted to rural IVHS systems?

[The information follows:]

We do not separately identify budget amounts for specific areas of operational tests such as rural IVHS systems. In developing areas of focus for solicitation of proposals, we review operational test needs and priorities for the various IVHS user service areas as documented in the *National IVHS Program Plan.* Specific budgets and schedules are prepared by the partnerships which form to offer proposals. As part of this process, rural areas are expected to benefit from a number of IVHS user service areas such as en-route guidance and traveler information services. We also expect to focus on IVHS systems which may be especially well-suited to rural areas, such as automated mayday, but do not currently have an estimate of expected expenditures.

COST BENEFIT EVALUATIONS OF IVHS OPERATIONAL TESTS

Mr. CARR. Explain how cost-benefit evaluations are used in determining which IVHS operational tests to finance.

[The information follows:]

In seeking partnerships to conduct operational tests, the US DOT publishes an open solicitation for proposals. The evaluation and selection criteria used to rank proposals includes consideration of partnership contributions and federal role in the project, but a rigorous cost-benefit evaluation of proposals is not conducted. It is the basic objective of the operational testing program itself to determine the costs and benefits of providing a particular IVHS user service, and evaluation requirements emphasize this objective. We do seek to maximize the "leveraging" impact of the federal IVHS funds by encouraging private sector and other non-federal participants to contribute financially, and the degree of non-federal share is considered in our selection process.

INTERACTION BETWEEN IVHS AND DEFENSE TECHNOLOGY CONVERSION ACTIVITIES

Mr. CARR. The justifications contain the following statement:

> It is proposed that an additional $15,000,000 be invested in IVHS operational tests and supporting research to further defense technology conversion objectives * * *.

Is this effort clearly focused? It would seem that IVHS research may present an opportunity for firms scaling back on defense related work to transition into other areas. It does not seem that additional IVHS funds should be targeted "to further defense technology objectives." Those objectives may not be what is best for the IVHS operation testing activity. How precisely do your operations and defense conversion activities interact?

[The information follows:]

We believe the referenced sentence in its full context is "It is proposed that an additional $15 million be invested in IVHS operational tests and supporting research to further defense technology conversion objectives *and achieve IVHS program objectives in areas such as public transportation, commercial vehicle operations, hazard warning and emergency notification systems, advanced vehicle safety systems, and traffic management applications.* [Emphasis added].

Our operations and defense conversion activities do not presently interact as precisely as needed because sufficient funds are not available to convert the considerable array of applicable defense technology to IVHS applications. In fiscal year 1995, assuming that the FHWA and NHTSA research and development budget requests are fully supported, the increased level of Advanced Technology Application funds will be used to:

Fund proposals submitted under the Technology Reinvestment Project (TRP) administered by ARPA that have promise for producing valuable IVHS products, but were not funded because the products did not also have apparent defense applications.

Support proposals submitted in response to the National Tank and Automotive Command's (TACOM) Automotive Center's (NAC) defense conversion/dual use Broad Agency Announcements. We are being encouraged by the NAC to review such proposals for promising IVHS related applications and support these projects.

Initiate a program similar to the TRP and NAC programs, but focused on IVHS applications. The goal is to supplement the ARPA and NAC solicitations and accelerate the application of defense-related technologies to specific IVHS applications, in line with President Clinton's defense conversion objectives. Based on our recent experience in evaluating proposals submitted for TRP and NAC funding consideration, and our experience in evaluating proposals submitted for funding consideration under the DOT-sponsored IVHS IDEA program, we are convinced that there are many innovative ideas worthy of assistance in developing product concepts that could help attain improved system performance and cost effectiveness as well as address the goals of defense conversion and dual use.

Test and evaluate promising DoD related products developed via the DoD programs (such as TRP and NAC) and the above activities by integrating them into appropriate IVHS operational tests (using combined advanced technology applications and operational test program funds).

ORLANDO TRAVTEK PROJECT

Mr. CARR. The TravTek project in Orlando was completed nearly one year ago. The report assessing the project still has not been completed, is that correct?

[The information follows:]

While it is true that the final report has not yet been issued, interim results have been made public at various conferences. In fact, preliminary results showed that those who used TravTek planned their trips 80 percent faster than those without the system, and reached their destination 20 percent faster.

Mr. CARR. Who is preparing the report and why has it taken so long for it to be issued?

[The information follows:]

SAIC (Science Applications International Corporation), which is preparing the reports, is actually on schedule. The original schedule called for the documents to be available 15 months (March 31, 1994) after conclusion of the "live", i.e. public participation, phase of the operational test. The live phase of the test was extended by three months (to March 31, 1993) by common agreement of the test partners. The analysis and reporting phase was subsequently extended an equivalent amount (to June 30, 1994).

The documentation will consist of nine individual reports which will provide details of the individual studies conducted in the evaluation. The contractor and members of the evaluation working group (EWG) team have provided interim results through papers and presentations at various domestic and international conferences and symposia. In addition, the contractor and EWG team provided a two-day joint evaluation workshop with the principals from the Michigan (FAST–TRAC) and Chicago (ADVANCE) operational tests. This workshop provided valuable insights to the attendees on the conduct of an evaluation in a live operational test environment. Proceedings from the workshop were provided to all the attendees and were subsequently distributed to FHWA Regional Offices.

Mr. CARR. Obviously, getting results of operational tests to interested parties is one of the most critical aspects of such testing. Do you think that FHWA is placing adequate emphasis on this aspect of the program?

[The information follows:]

We are just beginning to see a number of early IVHS operational tests coming to closure, and we agree that it is vitally important to disseminate results as quickly as possible. We also encourage open availability of interim results from projects which are underway, and believe that sufficient emphasis is being given to this need. A number of forums and mechanisms exist to distribute project results, including periodic conferences such as the Transportation Research Board and IVHS America annual meetings, project newsletters, periodic publications such as the Institute of Transportation Engineers *Journal* and IVHS America's *IVHS Journal*, and the Information Clearinghouse operated by IVHS America. We will continue to carefully review the needs and opportunities for efficient distribution of results in a timely manner, and do not believe that a problem exists at this time.

COMMERCIAL VEHICLE OPERATIONS

Mr. CARR. The budget includes $10,000,000 for commercial vehicle operations, the same amount as available in 1994. This activity would seem to be one of the most promising for near term operational impact with a direct financial benefit for the motor carrier industry, and by extension, the consuming public. Is that a fair assessment?

[The information follows:]

We certainly agree that commercial vehicle operations (CVO) is one of the most promising areas for near term benefit. As stated earlier, we created a separate program category in fiscal year 1994 to assure timely achievements. This category provides for dedicated funding for CVO, over and above the CVO activities already included in other program categories, such as operational tests, priority corridors and institutional and legal issues. In addition, funding support for the IVHS CVO program is also being provided by other elements of the FHWA Motor Carrier program.

Mr. CARR. That being the case, why does the budget for commercial vehicle operations show no increase, while nearly every element of the IVHS program reflects growth?

[The information follows:]

The support for CVO will continue in fiscal year 1995 at the fiscal year 1994 level or above. As we complete the National IVHS Program Plan and set overall IVHS program priorities, we will assess future budget requests in the CVO program category and across other program categories to ensure that sufficient funding will be available to achieve CVO program objectives.

IVHS COMMERCIAL VEHICLE NETWORK

Mr. CARR. Explain the objectives and status of the National IVHS Commercial Vehicle Network. How much funding is dedicated to this effort in 1994 and planned for 1995?

[The information follows:]

The objective of the "National IVHS Commercial Vehicle Network", now called "Electronic Clearance" is to improve safety and productivity by allowing safe and legal trucks and buses to travel the highways just as cars do, i.e. without stopping at state borders, ports of entry or weigh stations. Vital safety, credential and weight information would be checked electronically. Electronic clearance will be implemented in phases.

Phase I: In 1997—An information network nationwide will allow states to check interstate carries safety and selected credentials based on periodic downloads. Recommendations will be made on high speed weigh-in-motion (WIM) equipment. Also, standards for vehicle to read communication will be established.

Phase II: After 1997—Capability to check both inter and intrastate carrier information and latest driver and vehicle safety data in real time.

Phase III: Incorporate the latest technology for onboard monitoring of driver, vehicle, and cargo status in real time with appropriate warnings to the driver, carrier and enforcement officials.

Status: Major activities of developing electronic clearance systems in 1994 are:

Begin testing a form of electronic clearance in the Advantage I–75 and HELP Inc. projects.

Develop user requirements (safety, credentials, weigh) and architecture with partners and help from Johns Hopkins Applied Physics Lab.

Complete analysis of high speed WIM systems.

Initiate study to develop guidelines for instrumenting weigh stations.

Develop the interstate carrier safety profile and algorithm that would be the same or similar to that for the 100 MCSAP sites.

Summarize the barriers to electronic clearance based on results of states CVO institutional studies.

Begin cost benefit analysis of the service to carriers and states.

The amount of IVHS funding that will both directly and indirectly contribute to nationwide electronic clearance in 1994 is about $15 million, including funding derived from the CVO program category as well as other program categories. We anticipate fiscal year 1995 funding will be no less than that in fiscal year 1994.

AUTOMATED HIGHWAY SYSTEM PROTOTYPE

Mr. CARR. ISTEA mandates DOT to develop a prototype automated highway system by 1997. It is now 1994. Do you think that accomplishing that goal by such a date is reasonable and feasible?

[The information follows:]

DOT fully intends to demonstrate AHS prototype technology on a test track in 1997. Within the overall AHS program, the 1997 requirement is an opportunity to demonstrate the proof-of-technical feasibility of the fully automated AHS concept as well as key AHS technologies. However, this demonstration is not expected to be a "full-up" demonstration of a final prototype system design. That is, there is very substantial analysis, development, and testing (both lab and test track) that will be required beyond 1997 before a recommended AHS system configuration will be established and available for additional demonstration and eventual operational testing.

The National AHS Consortium, which will be established this year, will be able to move quickly into the program because considerable analysis has already been undertaken through the AHS precursor systems analyses studies started in fiscal year 1992. The National AHS Consortium will be able to move forward quickly to perform the necessary test track preparations and prototype development to conduct the 1997 demonstration, assuming full program funding in the years leading up to the demo. We very much support the timing of this demonstration and see it as an important event in establishing the soundness of the AHS program.

Mr. CARR. Shouldn't an endeavor as important as the country's first automated highway system be driven by the technology and performance and not by an artificially imposed schedule?

[The information follows:]

We completely agree and have designed an overall AHS R&D program which we believe is flexible in schedule and is focused on technology and performance issues, in addition to institutional, societal, and other issues. As noted above, the 1997 prototype demonstration schedule is not artificially driving the process, because it is focused on proof-of-technical feasibility of the AHS concept and key AHS technologies. However, the overall R&D program phase is expected to take 6–8 years before a system design is ready for operational testing. This overall R&D program will examine a wide range of concepts, issues and tradeoffs, narrowing these down through in-depth analysis of all key issues to a few promising concept alternatives, which will then be thoroughly evaluated through further analysis, simulation, and subsystem prototyping prior to operational testing.

NATIONAL AUTOMATED HIGHWAY SYSTEM CONSORTIUM

Mr. CARR. What are the status and functional responsibility of the national consortium to be established in 1994? Does the FHWA have representation on the consortium?

[The information follows:]

Yes, the FHWA will be represented on the consortium and will play a major role in key consortium decisions. The Government role is clearly defined in the AHS solicitation, and applying consortia are required to accommodate this role in their proposed management structure. In general terms, the government will participate in policy decisions, management reviews and associated decisions, and will also maintain a day-to-day presence at the consortium program office.

The DOT selection process to establish the national AHS consortium formally began last December, 1993 with the release of a request for applications. These were received in March, 1994 and evaluation and negotiations will follow. The DOT expects to sign a cooperative agreement with the selected consortium late in fiscal year 1994. The consortium will be responsible for providing a focal point for U.S. AHS development, to include representation of stakeholder views (those inside and outside the consortium), national coordination, and outreach; managing the program, in terms of proper management of resources, decision making, and accessing key expertise; meeting program milestones, i.e. conducting the R&D to develop and validate the AHS configuration which is seen as optimum for eventual deployment, to include efforts to accomplish the 1997 demonstration; and participate in resource contribution and management, which includes cost sharing of 20 percent minimum and competitive procurement of a defined portion of the federally funded R&D.

AUTOMATED HIGHWAY AND VEHICLE PROTOTYPE

Mr. CARR. What organization will function as the general contractor for the prototype demonstration? Will it be the FHWA? The national consortium? A corporation yet to be determined?

[The information follows:]

The national AHS consortium will have responsibility for conducting the 1997 prototype demonstration. As stated above, the FHWA will be represented on the consortium and will play a major role in key consortium decisions.

Mr. CARR. The justifications indicate that, in 1995, "additional funds could make it possible to prototype fully and test more than one system approach, reducing program risk and increasing the likelihood that the *best* approach is implemented."

Another reading of the basic legislation may be in order.

Section 6054(b) states the following:

> The Secretary (of Transportation) shall develop an automated highway and vehicle prototype from which future fully automated intelligent vehicle-highway systems can be developed. Such development shall include research in human factors to ensure the success of the man-machine relationship. The goal of this program is to have the first fully automated roadway or an automated test track in operation by 1997. This system shall accommodate installation of equipment in new and existing motor vehicles.

Thus, the *goal* is to have *one* prototype—or test track—by 1997. It is not to have several prototypes and select "the best approach." Given the multiple facets and purposes of IVHS, it is doubtful that one approach can satisfy all challenges. After all, the needs and characteristics of a rural of suburban IVHS system will, of necessity, be different from a completely urban setting. In addition, some IVHS applications favor in-vehicle technologies. Others stress infrastructure information management. The Committee does not believe the automated highway system developed pursuant to section 6054 should represent the pinnacle in IVHS development. Rather, it should represent one milestone along the way. How do you respond to the observation that the justification material seems to indicate the FHWA may be expanding the AHS concept beyond the original intent?

[The information follows:]

The question consists of at least two important points. The first relates to our 1995 justifications and the following additional clarification of the 1995 budget justification is provided. The statement in the justifications that additional funds could make it possible to prototype fully and test more than one system approach refers to the overall AHS program, not to the plans for the 1997 demonstration which is, as noted by the question, more limited in scope. As noted in previous answers, the system definition phase of the AHS program, in which the prototype(s) will be developed, is expected to span 6–8 years, starting in fiscal year 1994. A systems development approach will be applied to formulate concepts and perform sufficient analysis, test, and evaluation to define the system configuration that is seen as preferred for national deployment in the views of key stakeholders. Under current budget plans, this one configuration will be fully prototyped and tested to validate its performance.

The clarification noted in the question was that additional program funding would open the door to prototyping of more than one promising configuration later in the program, so as to more thoroughly evaluate alternatives. As noted, the 1997 demonstration will showcase key system approaches, subsystems, and AHS technologies in order to clearly establish the technical feasibility of AHS. Thus, the demonstration will not attempt to present the one “best” approach to AHS.

Regarding other points of this question, the AHS system configuration which will be selected eventually must be defined at the level that basic standards, performance specifications operating aspects, etc. can be nationally established. This is obviously a fundamental requirement for national connectivity. It also should be viewed as an “umbrella” configuration which encompasses the varied operational environments (rural, suburban, urban) in which AHS will be deployed. While an AHS implementation may differ between these environments, it is essential that they interoperate seamlessly and that vehicles equipped for one implementation are compatible with all other implementations across the country. To achieve this interoperability and seamlessness, the objective is to eventually develop a national system performance specification with the AHS stakeholders.

On another aspect of the question, there is perhaps an inference that AHS incorporates all of the IVHS services. Actually, AHS is only one of the IVHS services and will operate within the context of the larger IVHS system. For example, AHS can be expected to be deployed on high priority routes in high demand, major urban and inter-city freeway corridors. On these roadways, AHS promises major performance improvements for freeway operations, in terms of throughput, safety and quality of service. The overall national IVHS system will, of course, be much more comprehensive such that other performance maximums in services outside AHS may be achieved in areas such as signal control and traveler information management. Thus, while AHS cannot represent the “pinnacle” for the totality of IVHS development, it is one of several key initiatives which in combination offer the full potential of IVHS.

Regarding the scope of the AHS program relative to section 6054(b), a serious program commitment to AHS has been a key goal of the IVHS program from its inception. Section 6054b of the ISTEA was welcomed as Congressional direction and support for a national commitment to an AHS program. A key aspect of this language is that the AHS prototype be one “from which future . . . systems can be developed.” This is consistent with the DOT view that the AHS program be an earnest system development activity focused on eventual commercialization and grounded in real world concerns. As such, the DOT program philosophy is centered on a partnership approach between stakeholders and DOT. This stakeholder involvement is essential for the AHS developed to be accepted by industry for commercialization and by transportation agencies for deployment. For both the public and private sector to invest in the partnership, a credible long term program must be in place with a long term Federal commitment. In this context, the 1997 demonstration is seen as part of a larger, comprehensive approach to system development. One which will attract private investment and further the goal of early AHS spinoffs and market opportunities as well. We believe the DOT program is very consistent with the clarification received from the House of Representatives during the appropriations process (Oct. 21, 1993). This language notes that the AHS is a long term program, much more than a demo, focused on developing a commercially and societally viable AHS, with development activities continuing into the next decade. The 1997 demo, per these remarks, is intended only as a starting point, with continuing major R&D to ensure a robust and safe high performance system, the ultimate product being a system configuration that can be economically commercialized.

AUTOMATED HIGHWAY SYSTEM DEVELOPMENT

Mr. CARR. What is the total amount of federal funds the FHWA intends to devote to AHS development from 1994 through 1997, by fiscal year?

[The information follows:]

DOT has made an initial budgetary estimate that $150M of federal funds will be required during the system definition phase of the program to define, prototype, and fully evaluate the AHS system approach seen as optimum for eventual deployment. This budget requirement and associated schedule will soon be reviewed after evaluation of the applications for the National AHS Consortium. The federal budgetary estimate at this time to support this effort by fiscal year can be estimated as follows:

	Millions
1994	$10
1995	20
1996	35
1997	45

PRIVATE SECTOR CONTRIBUTION TO AHS

Mr. CARR. Does the FHWA's long term plan for the automated highway system include a financial contribution by the private sector? What percentage of total project costs might be funded by the private sector?

[The information follows:]

Yes. The AHS request for applications, upon which the cooperative agreement with the national AHS consortium will be based, requires a minimum 20 percent cost sharing on the part of the consortium. The contribution will be shared among consortium members, composed of both private and public sector partners. The allocation of cost sharing contributions within the consortium are left up to the consortium. Also, as AHS spin-offs get closer to the market place, we expect the private share of those development costs to grow dramatically and become the full responsibility of the private sector.

Mr. CARR. Fiscal year 1994 was the first year for funding in the advanced technology applications activity. Has any of the 1994 funding been put on contract yet?

[The information follows:]

Fiscal year 1994 funding in the advanced technology applications program category is being used in conjunction with funds in both FHWA and NHTSA to support projects which involve the development of IVHS applications using advanced technologies. Work is already underway to explore the application of advanced computing architectures to the problem of executing dynamic traffic assignment algorithms in close to real-time. Work is also proceeding under an interagency agreement with the Institute of Telecommunications Services of the National Telecommunications Information Administration in the Department of Commerce to analyze differential GPS system alternatives for land navigation. Several other fiscal year 1994 projects have been advertised, including the testing and evaluation of advanced IVHS mobile communications concepts.

DEFENSE CONVERSION PROGRAMS

Mr. CARR. Provide additional information concerning the relationship of this effort with the Department of Defense and its defense conversion programs. Do you have any institutionalized procedures to ensure that there is synergy, and not duplication, in your actions?

[The information follows:]

We have been very actively coordinating with the Department of Defense, primarily through high-level staff participation in the ARPA Technology Reinvestment Project proposal evaluation process, and also through high-level staff participation in the review of proposals submitted in response to the National Automotive Center (part of the Tank and Automotive Command) broad agency announcement for defense conversion/dual use applications. Fiscal year 1995 IVHS funds will be used to support proposals with promising IVHS applications discovered through our participation in these DOD programs that are not selected for funding because their defense applications may not be sufficiently strong. We will also specifically solicit for projects that involve defense technologies and IVHS applications. Through our involvement and participation in the DOD programs, we will be able to ensure that we do not duplicate work already being funded.

IVHS PRIORITY CORRIDORS

Mr. CARR. The 1995 budget requests $15,000,000 for IVHS priority corridors. This marks the first year of specifically requested funding for the IVHS corridors set forth in the ISTEA. Provide information for fiscal years 1992, 1993, and 1994 portraying federal funding, state/local funding, and other funding for the four priority corridors.

[The information follows:]

The ISTEA "IVHS Act of 1991" requires that at least one-half of the authorized corridor program funding (which equaled $35.5 million fiscal year 1992 and $43 million per year for fiscal years 1993 through 1997) go towards IVHS activities in the priority corridors. The following table indicates the activities that have been embraced by the coalitions or organizations responsible for managing the four priority corridor sites with federal and non-federal funding indicated.

Priority Corridor	1992–94	
	FHWA IVHS	Non-Federal
I–95 Corridor Coalition:[1]		
Information Exchange Network	$6,000,000	
Multi-state, multi-entity incident management procedures	1,500,000	
Surveillance requirements	3,000,000	
Commercial vehicle operations, including travel information needs of I–95 Corridor passengers and freight users/customers	750,000	
Public/private outreach effort	300,000	
User needs/marketability	750,000	
Consultant services	2,000,000	
Traveler information	3,250,000	
Coordinated variable message signs and highway advisory radio	3,000,000	
Communications infrastructure requirements	500,000	
Technology exchange and training	500,000	
Intermodal outreach to involve the full array of transportation providers and users within the Corridor	300,000	
Institutional barriers & issues	200,000	
Midwest Corridor:		
Borman Expressway ATMS	550,000	$1,200,000
Program Plan Development	260,000	40,000

Priority Corridor	1992–94	
	FHWA IVHS	Non-Federal
Houston, TX Corridor:		
Houston Smart Commuter	2,000,000	2,000,000
Southern California:		
Integrated Ramp Metering [2]	2,617,000	720,000
Mobile Communications [2]	3,000,000	1,000,000
SCOOT Comparison/Evaluation [2]	1,156,647	1,114,000
Smart Call Box [2]	915,000	1,345,000
Spread Spectrum Interconnect [2]	2,600,000	900,000
SMART Corridor	1,100,000	47,000,000

[1] The non-federal contributions of activities in the I–95 Northeast Priority Corridor consist of IVHS-related activities fully funded by state or other non-federal entities within the corridor, as submitted by the coalition and approved by the USDOT.

[2] The non-federal contributions noted above are generally local (state, county or city) funding; however, some of the projects selected in fiscal year 1993 include significant in-kind contributions of private sector industries as well as public agencies.

Mr. CARR. How does the FHWA intend to allocate the $15,000,000 requested for 1995?

[The information follows:]

We will base these decisions on the individual corridor program plans as they are developed by the four priority corridor organizations. The four corridor areas have already identified a number of activities that will be ready to proceed in fiscal year 1995.

In the I–95 Northeast Corridor these activities include analysis of the long-term communication infrastructure needs and requirements within the corridor, establishing an information exchange network for member agencies of the I–95 Corridor Coalition, continued development and testing of traveler information systems, outreach to public and private sector entities, and addressing institutional issues that may be restraining the progress of the coalition.

In the Mid-West Corridor, Indiana has proposed activities related to commercial vehicle operations and weigh-in-motion for the Borman Expressway area in northwestern Indiana. Also Illinois is proposing that date (travel times) derived from vehicles equipped for automated vehicle identification along the tollways will be used for traffic management purposes. The Regional Transportation Authority (transit authority) has developed a 5-year program that includes a bus management system, computer-aided dispatch, signal pre-emption, and other areas related to advanced public transportation, some of which will be embraced by the priority corridor and be funded in fiscal year 1995.

In the Houston Corridor, projects are planned for advanced traveler information for commercial vehicles, disseminating multi-modal transportation-related information to portable personal digital assistants, a system for traffic diversion within the priority corridor through lane-use signals and possibly in-vehicle navigation devices, and monitoring and information systems for environmental conditions.

In the Southern California Priority Corridor, fiscal year 1995 projects include a test of route guidance systems for high occupancy vehicles in the Los Angeles Smart Corridor, establishing an intermodal traffic operations center in San Diego, enhancing the county-wide traveler information system in Orange County, and incorporating testing of transportation-related elements of the proposed telephone-based information system (ATHENA project) in the City of Ontario.

ISTEA PRIORITY CORRIDORS

Mr. CARR. Is it your intention to limit the requested funds only to those priority corridors listed in ISTEA or to make funds available to other corridors as well?

[The information follows:]

The Secretary designated four locations as priority corridors based upon the seven criteria included in section 6056(b) of the "IVHS Act of 1991" of the Intermodal Surface Transportation and Efficiency Act of 1991. The ISTEA priority corridor funds will be expended only in these four areas. However, the remaining corridor program amounts will be used to support operational tests selected from open solicitations based on the needs of the *National IVHS Program Plan* and other initiatives in other geographic areas.

Mr. CARR. Have you received requests for funding from the four ISTEA priority corridors? Detail the requests for the record.

[The information follows:]

We have received the *I-95 Corridor Coalition Business Plan* which includes projects and activities with estimated funding levels for the 5-year period of the plan. The plan included $12.6 million in proposed funding of the first year (fiscal year 1993). We have also received a revised proposed fiscal year 1994 program spending plan indicating $12.5 million in funding. It is expected that much of this request will be funded with fiscal year 1995 funding. We expect to receive information related to expected funding requests for fiscal year 1995 and beyond from the three other priority corridor sites within the next three months as they develop their corridor program plans.

MIDWEST CORRIDOR

Mr. CARR. The justifications indicate that the midwest corridor "is still in the early stage of formation. The three participating DOTs have signed a memorandum of understanding pledging to work together and are in the process of hiring a consultant to develop the corridor program plan."

The midwest corridor has been the beneficiary of approximately $2,500,000 in Congressional earmarks in each of the past two years, is that correct? Given that level of support, and with the corridor still in the early stages of formation, why does this corridor need additional specific consideration in 1995?

[The information follows:]

It is correct that the midwest corridor was identified through Congressional Conference Reports to receive approximately $2.5 million in IVHS funds for fiscal year 1993 and 1994. The three individual state transportation agencies had formed a Gary-Chicago-Milwaukee Corridor Working Group and had developed preliminary plans for addressing the needs in each jurisdiction prior to being designated a priority corridor. The firm that is being acquired to develop the corridor program plan will compile, consolidate, and where appropriate augment these state plans into a comprehensive program plan for the entire midwest priority corridor. However, some projects were identified in the early draft state plans that help build the foundation for establishing IVHS programs within the corridor. Projects associated with the Borman Expressway in northwestern Indiana and information-sharing projects in the Chicago area are examples of projects that have been identified and either are or will be receiving funding allocated for priority corridor activities. We expect to receive information soon related to fiscal year 1995 and beyond funding requests from the midwest priority corridor coalition as it further develops its corridor program plan.

DEPLOYMENT SUPPORT

Mr. CARR. Another new program element in the IVHS area in 1995 is $10,000,000 for deployment support. According to the justifications,

> The objective of the program is to aid jurisdictions financially in the analysis of IVHS applications to local transportation problems and in the development of a strategic deployment plan for IVHS deployment.

Can you provide a little more information on precisely how the funds will be used? Are they, in effect, just another source of funding for MPOs and other planning groups? What oversight is there on the use of the funding to ensure that it is spent on IVHS related activities?

[The information follows:]

The deployment planning program is administered by the FHWA headquarters office and the individual project monitoring is conducted by the FHWA division and region offices. The program is announced annually through the Federal Register. The announcement outlines the intent and uses of the program for metropolitan areas and intercity corridors to study the application of IVHS service and technologies to their local transportation needs. The areas are required to respond to the Federal Register announcement by supplying information to show that the area is ready and committed to the pursuit of IVHS deployment. Based on these responses, areas are selected up to the number which can be accommodated with the available funds for that fiscal year. The areas must prepare and have approved by FHWA a written scope of work which details what they intend to accomplish with the Deployment Planning funds. The FHWA regions and, particularly, division personnel work with the areas on a continuing basis to ensure that the studies are pursued as stated. A copy of the completed report is forwarded to FHWA for approval.

STRATEGIC DEPLOYMENT PLANS

Mr. Carr. Why should individual communities be involved with "a strategic plan for IVHS deployment?" Isn't this function more properly managed at the state, if not the federal level?

[The information follows:]

These "strategic deployment plans" outline the short and long range plans for a community to implement IVHS services and technologies. IVHS will ultimately be a series of local deployments linked together through a national architecture so that information can be communicated across jurisdictional boundaries. Although information will be shared at a state and national level, IVHS deployment will begin at the local level through the development of local architectures capable of interfacing with the national architecture. In several instances states are preparing deployment plans for the entire state to ensure consistency. While this is a desirable effort, it does not preclude the necessity of local planning and deployment. IVHS services cut across many boundaries and require that states, cities, MPOs, transit, enforcement, and emergency services agencies work together to provide an effective application of IVHS at the local level.

Mr. Carr. For 1995, indicate how much funding you envision being provided for deployment planning, how much for deployment guidelines and how much for outreach activities.

[The information follows:]

In the proposed 1995 budget we anticipate a funding level of $14 million for deployment planning. Deployment planning includes the early deployment planning program and some training initiatives that we expect will assist the deployment effort. We also anticipate a total funding level of $6 million for technology transfer activities relating to IVHS deployment. The technology transfer activities include numerous training efforts, technical studies supporting IVHS deployment and infrastructure development, and IVHS outreach activities.

IVHS OUTREACH ACTIVITIES

Mr. Carr. The following statement appears in the justification material for IVHS outreach activities:

> Funds would also be targeted to simulate young people's interest in technology related careers through the Youth Corps Program.

Please explain the logic through which the Federal Highway Administration believes assistance for the Youth Corps Program is a valid use of Highway Trust Fund resources budgeted for the deployment of the Intelligent Vehicle-Highway System.

[The information follows:]

Based on a legal ruling, federal-aid highway funds maybe used for community service projects. However, the projects must fall within the parameters of the work that is authorized by the particular federal-aid program under which the project is to be funded. There are no restrictions on activities of the Secretary or other Departmental officials to encourage the integration of community service projects into programs using federal-aid funds. The Department does not have the authority to mandate that the States use a portion of their federal-aid funds for community service projects.

As Urban Youth Corps are established in accordance with the National and Community Service Trust Act there may be opportunities to incorporate IVHS oriented activities into these programs. FHWA is continually looking for opportunities to use existing programs to increase awareness about IVHS and is relying on the networks established by existing organizations to conduct a broad based IVHS outreach effort.

Mr. CARR. Provide some information about the Youth Corps Program including its purpose and sources of funding.

[The information follows:]

Under the National and Community Service Trust Act of 1993, federal agencies are eligible to sponsor and apply for funding for community service programs. The Act also establishes an Urban Youth Corps in the Department of Transportation and the Department of Housing and Urban Development and authorizes these agencies to enter into agreements with or provide states with funding for qualified Urban Youth Corps. Urban Youth Corps service projects are defined as "any project for the rehabilitation, reclamation, or beautification of urban public housing and public works and transportation resources or facilities." The purpose of the Act indicates that these projects are to be performed in urban areas suffering from high rates of poverty where work will not be performed by existing employees.

IVHS PROGRAM AND SYSTEMS SUPPORT GRANT RECIPIENTS

Mr. CARR. The 1995 budget includes $12,300,000 for IVHS program and systems support, the same amount as budgeted in 1994. For 1993 and 1994, provide a listing of each grant or contract recipient made under this activity valued at $100,000 or more.

[The information follows:]

[In millions of dollars—the amounts have been rounded to the nearest $0.1]

Contract	Obligated 1993	Planned 1994
Program Support:		
Systems Engineering and Program Support for IVHS (MITRE)	$4.2	$5.1
Support of IVHS AMERICA	2.5	2.7
Support Services for Operations of FHWA's IVHS Program	0.4	0.4
Purchase of TravTek Vehicles		0.5
Program Planning and Systems Architecture Technical Support (Consultant)	0.1	0.1
Institutional Issues:		
Humphrey Institute Earmark [1]	0.8	1.0
George Mason University Earmark [2]	1.6	
Regional and Metropolitan Traffic Management Coordination	0.2	
Analysis of Legal Issues Relating to Implementation of the IVHS Program	0.2	
Analysis of Federal and State Privacy Laws and Development of Privacy Safeguards	0.2	
Applying Research Techniques to Understand Traveler Needs and Preferences		0.2
User Acceptance and Willingness to Pay		0.8
Lessons Learned in Other New Technologies for Deploying ATIS and ATMS	0.3	0.2
Societal Impacts of IVHS and Relationships to Other Information Technology Policy Initiatives	0.2	
Institutional Case Studies and User Response in Operational Tests (VNTSC task order)	0.6	0.6
Energy and Environmental Impacts (VNTSC task order)		0.6
Contracting in IVHS Grants and Cooperative Agreements		0.3
Legal Constraints and Fair Access Issues Related Shared Use of Communications Technologies Along Highway Rights of Way		0.3
Streamlining IVHS Procurement		0.2
Small and Disadvantaged Business Consortia		0.1
Preagreement Conference in Operational Test		0.1
Technology Transfer:		
Congestion Management Systems Prototype	0.2	
Marketing Services Support	0.2	
Traffic Engineering Database	0.2	
Commuter Lane Pricing	0.1	
Travel Demand Management Video	0.1	
ATMS Training Simulator	0.5	0.6

[In millions of dollars—the amounts have been rounded to the nearest $0.1]

Contract	Obligated 1993	Planned 1994
IVHS/Traffic Management Outreach & Information Dissemination	0.4	0.5
Contribution to Development of the TRANSIMS Simulation Model (Los Alamos)	....	0.5
Incident Management Assistance & Support	....	0.5
HOV Operations, Safety, Enforcement & Occupancy Requirements Studies	....	0.5
Local Government IVHS Partnership and Technology Transfer Program	....	0.4
IVHS Deployment and the Planning Process	....	0.4
Product Review & Marketing	....	0.4
Incident Management (Los Alamos)	0.3	0.2
Expert System for TRANSYT–7F	<0.1	0.2
Support to Field Offices for Traffic Management Initiatives	....	0.2
Public-Private Partnerships for Enhanced Traffic Engineering	....	0.2
Integrated Traffic Control System Workshop	....	0.1

[1] Humphrey Institute will provide recommendations for incorporating IVHS in State and local environmental planning processes.

[2] George Mason University is (a) assessing market factors affecting deployment of ATIS, (b) evaluating the impact of investments in IVHS in comparison with other surface transportation financing mechanisms, (d) assessing socio-environmental issues relating to IVHS, and (e) analyzing market techniques for IVHS outreach.

MITRE SUPPORT CONTRACT

Mr. CARR. Fiscal year 1994 is scheduled to be the final option year of the Mitre support contract. By fiscal year, what has been the total cost of the Mitre support provided to the IVHS program?

[The information follows:]

Mitre's performance under our systems engineering and program support contract has been exemplary. We continue to use them to assist in developing and managing specific and important program initiatives. Examples include national program planning, the system architecture, the automated highway system, and spectrum acquisition. Mitre is also used to support a broad array of activities in the R&D and operational test program categories. The funding history is as follows: fiscal year 1991—$2.1 M; fiscal year 1992)—$4.1 M; fiscal year 1993—$4.2 M; and planned fiscal year 1994—$5.1 M. The total funding is $15.5 M over the four-year period.

Mr. CARR. The FHWA plans to recompete in 1995 for the systems engineering support services contract, is that correct? What is the estimated range of the value of such a contract?

[The information follows:]

We certainly see a continuing need for systems engineering and program support services. We are currently in the process of negotiating the final option year of our current contract with Mitre. It is scheduled to commence on April 15. Shortly after that negotiation is complete, we will reassess our specific needs for these types of services. We have budgeted $5.0 million for this purpose in fiscal year 1995, in line with the expected cost of the final option year of the current Mitre contract. This estimate will be refined based on our assessment, and we will also determine how we will procure the necessary services.

IVHS PROGRAM BY CATEGORY

Mr. CARR. For fiscal years 1993, 1994 and 1995 provide for the record a breakdown of the IVHS program by category, as depicted in the 1994 conference report. Explain in detail any deviations in the 1994 program from the amounts shown in the conference report.

[The information follows:]

The following tables show the actual obligations for the IVHS program in fiscal year 1993, and the fiscal year 1994 and fiscal year 1995 program budgets, by category as depicted in the 1994 conference report. The GOE amounts shown in the fiscal year 1994 budget table correspond to the amounts identified for the various IVHS program categories in the 1994 conference report.

Also included is the actual fiscal year 1994 IVHS program spending plan, which includes carryover from fiscal years 1992 and 1993 of $25.8 million in GOE, $17.2 million of which is for an fiscal year 1992 earmark. The spending plan also shows $8 million in carryover from fiscal year 1993 in the ISTEA other activities category. $61.7 million in earmarked corridor program funds was also carried over from fiscal years 1992 and 1993 because the recipients have not yet advanced projects for the use of the funds.

The fiscal year 1994 spending plan, as discussed below, has been adjusted from the original budgeted amounts to reflect current program priorities, and the impact of Congressional earmarking of the IVHS corridor program funding that is provided under the ISTEA.

Research and development (R&D)—As shown in the fiscal year 1994 budget table, the identified needs for IVHS R&D activities totaled $45.1 million, which included $9.1 million to be funded through the "high risk" provision of the corridors program which allows 100 percent federal share. Due to the earmarking of corridor program funds for specific projects, however, this $9.1 million is not available for R&D activities. In addition, $6.9 million of the $28 million in GOE identified in the 1994 conference report for R&D activities is supporting other high priority areas, including expanded technology transfer, institutional and legal issues, and program support activities necessitated by the large increase in the size of the program in recent years. Thus the spending plan shows only $21.1 million in GOE for R&D activities. Critically needed R&D activities, which are focusing on the dual use and conversion of defense and aerospace technologies, are being funding from the Advanced Technology Applications category. As shown in the spending plan, this brings the total available for IVHS R&D activities in fiscal year 1994 to $41 million, $4.1 million less than the amount required in the original fiscal year 1994 budget, but a $4 million increase over the fiscal year 1993 level.

Automated Highway System (AHS)—The fiscal year 1994 budget table shows $20 million for AHS activities, including $10 million to be spent under the "high risk" provision of the corridor program. Again, due to the earmarking of corridor program funds for specific projects, the full $10 million is not available. $4.3 million in corridor program funds will be spent on the AHS in fiscal year 1994 to satisfy the legislative requirement that at least 5 percent of the $86 million in corridor program funding go to high risk activities each year. An additional $5.7 million in GOE is identified for the AHS, bringing the total to $10 million. This will meet the program's needs in fiscal year 1994, since AHS activities have advanced more slowly than anticipated due to the complexities of forming the consortia required for the demonstration phase. The balance of the $10 million in GOE identified for the AHS in the 1994 conference report will be used to support critically needed operational tests and commercial vehicle activities as discussed below.

Operational Test—The fiscal year 1994 conference report identified $15 million in GOE funding for the operational test program. The DOT fiscal year 1994 budget table included an additional $19.9 million in corridor program funding to support new and ongoing operational tests. As shown in the fiscal year 1994 spending plan, this figure is now $32 million, based on the directions of congress for funding primarily ongoing projects. Some of the GOE funding not needed for the AHS in fiscal year 1994 will be used to support new operational test projects which will be selected through an open solicitation process, focusing on needed activities to advance the IVHS program as identified in the National IVHS Program Plan.

Commercial Vehicle Operations (CVO)—This is an especially significant element of the IVHS program and is identified as a separate funding category for the first time in fiscal year 1994. An additional $3.4 million, above the $10 million depicted in the 1994 conference report, will provide for operational testing of promising technologies and systems to accelerate the achievement of the productivity and safety benefits of the CVO part of the IVHS program.

FY 1994 Budget Table (Millions)

Program Category	Funding Category			
	GOE	Other Activities	Corridor Program	Total
Research and Development	28.0	8.0	9.1	45.1
Operational Tests	15.0		19.9	34.9
Commercial Vehicle Operations	10.0		4.0	14.0
Automated Highway Systems	10.0		10.0	20.0
Advanced Technology Applications	15.0			15.0
Priority Corridors			43.0	43.0
Deployment Planning		7.0		7.0
Program & System Support				
Institutional & Legal Issues	2.4			2.4
Technology Transfer	3.0			3.0
Program Support	6.9			6.9
System Architecture		12.0		12.0
FY-94 FHWA IVHS Funds	90.3	27.0	86.0	203.3

FY 1994 Spending Plan (Millions)

Program Category	Funding Category			
	GOE	Other Activities	Corridor Program	Total
Research and Development	21.1	5.0		26.1
Operational Tests	23.4	8.0	32.8	64.2
Commercial Vehicle Operations	13.4			13.4
Automated Highway Systems	5.7		4.3	10.0
Advanced Technology Applications	14.9			14.9
Priority Corridors			85.1	85.1
Deployment Planning		7.0		7.0
Program & System Support				
Institutional & Legal Issues	4.8			4.8
Technology Transfer	4.9			4.9
Program Support	9.5			9.5
System Architecture	.2	12.0		12.2
Other Designated Projects	18.2	3.0	25.5	46.7
FY-94 FHWA IVHS Funds	116.1[1]	35.0[2]	147.7[3]	298.8

[1] Includes $25.8 in carryover from FYs 92 and 93. $17.2 of this amount is earmarked.

[2] Includes $8 million in carryover from FY 93.

[3] Includes $61.7 million in carryover from FYs 92 and 93 for earmarked projects.

Intelligent Vehicle Highway Systems (IVHS)
FY 1993 DOT Program Obligations (Millions)

Program Category	Funding Category			
	GOE	Other Activities	Corridor Program	Total
Research and Development	15.4	6.8	14.8	37.0
Operational Tests	0.0	32.8	2.7	35.5
Commercial Vehicle Oper.	0.0[3]	0.0	0.0	0.0
Automated Highway Systems	0.0	2.6	11.4	14.0
Advanced Tech. Applications	0.0[4]	0.0	0.0	0.0
Priority Corridors	0.0	0.0	31.1	31.1
Deployment Planning	0.0	7.0	0.0	7.0
Program & System Support				
Inst. & Legal Issues	1.1	4.0	0.0	5.1
Technology Transfer	1.9	1.4	0.0	3.3
Program Support	7.1	0.2	0.0	7.3
System Architecture	1.8	4.0	0.0	5.8
Other Designated Projects	8.8	0.0	0.0	8.8
Total FY 93 FHWA Obligations	36.1	58.8	60.0	154.9
Total NHTSA FY 93 Obligations				7.1
Total FTA FY 93 Obligations				3.0
Total DOT IVHS Obligations				165.0

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[3] A separate CVO program category did not exist in FY-93. CVO projects were funded out of the research and development, operational tests, and institutional issues program categories.

[4] The Advanced Technology Applications program category was created in FY-94 with the Rebuild America initiative.

FY 1995 PROPOSED BUDGET
INTELLIGENT VEHICLE/HIGHWAY SYSTEMS (IVHS)

Category	President's Request	ISTEA Enacted		TOTALS
	(GOE)	Other Activities	Corridors Program	
Research and Development	38.51*	8.0	4.3	50.81
Operational Tests	30.00	0.0	38.7	68.70
Commercial Vehicle Oper.	10.00	0.0	0.0	10.00
Automated Highway Systems	20.00	0.0	0.0	20.00
Advanced Technology Applications	30.00	0.0	0.0	30.00
Priority Corridors	15.00	0.0	43.0	58.00
Deployment Support				
Deployment Planning	7.00	7.0	0.0	14.00
Technology Transfer	3.00	0.0	0.0	3.00
rogram & System Support				
Inst. & Legal Issues	4.00	1.5	0.0	5.50
Technology Transfer	3.00	0.0	0.0	3.00
Program Support	5.30	0.0	0.0	5.30
System Architecture	0.00	10.5	0.0	10.50
Total FHWA IVHS budget	165.81	27.0	86.0	278.81
NHTSA IVHS budget **				7.50
FTA IVHS budget **				3.00
TOTAL DOT IVHS BUDGET				289.31

* Includes $10 million to be transferred to NHTSA for IVHS collision avoidance activities.

** Safety and public transportation IVHS projects are also supported with funds in FHWA's IVHS budget.

LONG-TERM PAVEMENT PERFORMANCE

Mr. CARR. The long-term pavement performance program experiences significant growth in the 1995 budget, increasing from $7,000,000 to $13,000,000. With funding previously provided, the program has been able to identify and establish 1800 test sections located throughout the United States and Canada. The budget documentation submitted to date provides scant justification to support an 85 percent increase in this activity. What additional rationale do you have in support of this large increase?

[The information follows:]

The Long-Term Pavement Performance (LTPP) program was funded by the Strategic Highway Research Program (SHRP) for 5 years as a part of the $150 million SHRP legislative package included in the Surface Transportation Assistance Act of 1987. An annual LTPP budget of $10 million was established. during this period, broad program goals and objectives were established. In addition, most of the necessary field data collection guides were prepared; experimental pavement designs were identified; material handling and testing methods were established; and equipment calibration procedures were specified. The initial round of field data collection was completed on 800 existing, in-service General Pavement Study (GPS) sections.

On July 1, 1992, the Federal Highway Administration (FHWA) assumed the responsibility to continue the LTPP program for its remaining 15 years. LTPP activities for the second 5-year period (1992–1997) are focused on:

(1) Refining LTPP system operation and continuing data collection on all 800 GPS sections.

(2) Finishing all specially designed and constructed experimental test sections identified in the Specific Pavement Study (SPS). These sections will be included into the data collection process as they become available.

(3) Integrating LTPP and other SHRP activities (SHRP research in asphalt, concrete and structures, and highway maintenance).

(4) Refining the SUPERPAVE performance model and starting SPS–9 experimental design for the validation of SUPERPAVE.

(5) Continuing international cooperation (particularly with the 14 countries that have used the LTPP guidelines and established their own LTPP program).

(6) Conducting seasonal monitoring studies on 64 selected GPS sections. These sections are to be instrumented with Time Domain Reflectometry (measure moisture), Thermistors or Thermocouples (measure temperature), Resistance Probe (measure frost depth), and Piezometer (measure groundwater level).

(7) Conducting data analyses and special studies and providing implementable findings to all user agencies.

The SPS experiment involves the construction and/or reconstruction of selected highway projects. Unlike the GPS experiment, most of these sections will require continuous weight-in-motion traffic monitoring, pavement response instrumentation and weather station measurements. To date, about 1000 SPS sections have been added to the field data collection process. As the recruitment of SPS continues, it is anticipated that 300 to 400 SPS sections will be added to the program annually until 1997 when the majority of all SPS–1 through SPS–8 experiments are completed. At that time, the program should have nearly 3,000 carefully selected, designed and constructed in-service pavement test sections throughout North America.

In an effort to timely accomplish the goals and objectives of the LTPP program, the level of effort for the post SHRP LTPP program increased significantly. With the additional need to replace worn out field testing and survey equipment, the budget level for the post-SHRP LTPP work was estimated at $15,000,000 annually, which would be made available through the combination of ISTEA (SHRP Implementation and LTPP continuation) and General Operating Expresses (GOE) line item for LTPP work. For fiscal year 1992, the program was funded at $14,000,000 ($10,000,000 GOE, $4,000,000 ISTEA). For fiscal year 1993, the program was funded at $12,000,000 ($6,000,000 GOE, $6,000,000 ISTEA). For fiscal year 1994, the program was funded at $15,000,000 ($7,000,000 GOE, $8,000,000 ISTEA).

For fiscal year 1995, the GOE line item estimate was made at $13,000,000. The program will also receive $6,000,000 from the ISTEA source, making a total of $19,000,000. As indicated above, the program will need a minimum of $15,000,000 to carry out the planned work. The additional $4,000,000 was included to:

(1) Offset the equipment replacement cost (about $2,000,000) that was delayed from fiscal year 1993 planned activities.

(2) Conduct forensic engineering analyses on selected GPS and SPS sections.

(3) Conduct analyses on the supplemental SPS sections that the participating State transportation agencies designed and constructed along side the LTPP SPS sections.

(4) Establish additional SPS experiments on crumb rubber modified asphalt pavements, and pavements utilizing European design concept practices (on both portland cement and asphalt pavements).

FEDERAL LANDS HIGHWAYS

Mr. CARR. Elaborate on precisely how the relative need is determined for federal lands highways projects and who makes the determination.

[The information follows:]

The allocation of funds on the basis of relative need varies with the funding category.

FOREST HIGHWAYS PORTION OF THE PUBLIC LANDS HIGHWAY

Section 202(b) of Title 23 U.S.C. provides for 66 percent of the public lands highway funds to be allocated by a forest highway administrative formula that also has two parts; 34 percent to be allocated by a relative needs formula and 66 percent to be allocated by a 1958 land area and land value formula.

The relative needs formula provides for 50 percent to be based on transportation related resource planning factors and 50 percent based on forest related cost to improve forest highways. The planning factors are recreation visitors days and timber harvest volumes. The forest related cost to improve forest highways is determined by multiplying percent forest related traffic times the cost to improve a section of forest highways.

The resource planning information is provided by the Forest Service. The cost to improve and percent traffic is derived from the forest highway inventory data maintained by FHWA.

The funds are allocated by Forest Service region in accordance with House Report 102–402, Conference Report to the ISTEA. Also, an attributed share of funds for forest highways are identified for each State having forest highways, using the same formula.

Relative Need Allocation=½ (TV + RVD)+½ (Cost × Percent FS Traffic)

Where: TV is percent of total timber harvest volume. RVD is percent of total recreation visitor days. Cost is improvement cost to bring forest highways to a given standard. Percent FS Traffic is the percent of average daily traffic that is forest related.

The remaining 66 percent are allocated according to a 1958 land area and land value formula as prescribed in Section 134 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (P.L. 100–17).

The Forest Service, state transportation agencies and FHWA annually meet and jointly develop the multi-year priority program of forest highway projects within available funding. The criteria for selection are provided in Part 660, 23 CFR.

DISCRETIONARY PORTION OF THE PUBLIC LANDS HIGHWAY

Thirty-four percent of the Public Lands Highway Funds are used for the Public Lands Highway Discretionary Program.

Section 202(b) of Title 23 USC provides for state transportation agencies to submit applications for funding of specific projects in response to an annual request by FHWA. The amount of funds requested in state applications have historically exceeded the amount of available funds. The selection and subsequent allocation of funds are determined by FHWA using the following criteria:

FHWA makes the allocations of funds based on the following selection criteria:

Projects that significantly enhance or benefit federal land and resource management activities.

Current status and adequacy of the present road with regard to route continuity, capacity, safety, and state or federal agency transportation plans.

Relationship of the proposed improvement to the adequate development of a completed highway section.

Previous funding of the route.

Priority ranking of projects by the FHWA regional office.

Projects located in States having 3 percent or more of the total Federal lands.

Schedule for physical construction as funds must be obligated during the fiscal year.

Consideration of Congressional earmarking.

Equitable distribution of funds to the states based on the State's percentage of Federal lands.

INDIAN RESERVATION ROADS (IRR)

In January 1993, a new relative need formula was approved by the Bureau of Indian Affairs (BIA) and the FHWA after more than six years of study and discussions with tribes. Under this formula, IRR funds are allocated to the 12 BIA Area Offices based on Indian population (20%), vehicle miles of travel (30%), and cost to improve IRR Roads (50%). The old allocation formula was based on Indian population (33%), Reservation (trust lands) area (33%), and existing BIA owned road mileage (33%). The transition from the old formula to the new formula will occur over a 4-year period (fiscal years 1993–1996). In fiscal year 1994, each formula is applied to one half of the amount of available IRR funds.

The Tribal governments develop a priority program of Indian reservation roads projects within available funding.

PARK ROADS AND PARKWAYS (PRP)

The National Park Service has a national servicewide priority setting process for infrastructure projects including park road projects. Through the national service wide setting process, various infrastructure projects are conceived and evaluated through the established NPS planning process. This planning process responds to Congressional mandates that all units of the Service have their operations guided by a formal planning process (i.e., general management plans) that include public transportation. The process establishes a multi-year national priorities for all major capital repair, rehabilitation, and new construction activities for the entire agency, regardless of which design and construction office performs work.

The National Park Service develops a multi-year program of PRP projects using the service-wide priority and available park road planning, road and bridge management information. The program of projects takes into consideration available funding, schedules to complete various environmental and project development and design work. Most of the projects involves rehabilitation or reconstruction of park road and bridge infrastructure. There are some new construction projects for completing uncompleted sections of the Natchez Trace Parkway and Foothill Parkway.

Mr. CARR. Does the FHWA use rate of return or cost-benefit analyses in determining the relative need?

[The information follows:]

No.

FEDERAL LANDS HIGHWAYS ALLOCATIONS

Mr. CARR. Does the Federal Highway Administration try to achieve any roughly equal geographical distribution in the allocation of federal lands highway funding?

[The information follows:]

The discretionary portion of the Public Lands Highway category is the only category where FHWA tries to achieve some rough geographical distribution of funding. It tries to distribute the funds geographically based on the percent of the total federal land in a state.

Mr. CARR. Provide data for the record for the last three fiscal years indicating the state and projects that received funding under the federal lands highway program.

[The information follows:]

FEDERAL LANDS HIGHWAY PROGRAM

ALLOCATION OF FUNDS FOR FOREST HIGHWAYS SHOWN BY STATE BOUNDARY – FY91–FY93

STATE	FY 91 ALLOCATIONS ($1000)	FY 92 ALLOCATIONS ($1000)	FY 93 ALLOCATIONS ($1000)
ALABAMA	263.02	448.86	545.57
ALASKA	4,129.37	6,023.04	7,320.74
ARIZONA	2,098.79	5,117.57	6,220.19
ARKANSAS	663.26	1,209.66	1,470.29
CALIFORNIA	7,007.41	11,958.49	14,535.04
COLORADO	4,039.84	6,894.19	8,379.59
CONNECTICUT	0.00	0.00	0.00
DELAWARE	0.00	0.00	0.00
D.C.	0.00	0.00	0.00
FLORIDA	368.36	604.91	735.24
GEORGIA	207.05	377.06	458.29
HAWAII	0.00	0.00	0.00
IDAHO	4,833.87	8,249.24	10,026.59
ILLINOIS	103.47	176.58	214.63
INDIANA	71.72	122.39	148.76
IOWA	0.00	0.00	0.00
KANSAS	0.00	0.00	0.00
KENTUCKY	182.91	312.15	379.40
LOUISIANA	163.57	279.14	339.29
MAINE	6.50	38.25	46.50
MARYLAND	0.00	0.00	0.00
MASSACHUSETTS	0.00	0.00	0.00
MICHIGAN	242.05	1,181.01	1,435.47
MINNESOTA	1,077.62	1,472.11	1,789.29
MISSISSIPPI	378.25	645.51	784.59
MISSOURI	105.62	547.16	665.05
MONTANA	4,111.58	7,016.61	8,528.38
NEBRASKA	22.69	118.58	144.13
NEVADA	1,340.04	1,262.91	1,535.01
NEW HAMPSHIRE	744.36	464.64	564.75
NEW JERSEY	0.00	0.00	0.00
NEW MEXICO	2,388.17	3,563.56	4,331.36
NEW YORK	0.00	0.00	0.00
NORTH CAROLINA	701.89	1,120.04	1,361.36
NORTH DAKOTA	45.77	239.24	290.79
OHIO	75.22	128.36	156.02
OKLAHOMA	68.43	116.78	141.94
OREGON	6,692.36	12,444.78	15,126.09
PENNSYLVANIA	198.10	338.06	410.90
PUERTO RICO	28.87	49.27	59.89
RHODE ISLAND	0.00	0.00	0.00
SOUTH CAROLINA	69.85	365.14	443.81
SOUTH DAKOTA	616.98	891.77	1,083.91
TENNESSEE	278.44	475.17	577.55
TEXAS	281.84	480.98	584.61
UTAH	1,722.67	2,939.82	3,573.23
VERMONT	97.69	166.71	202.63
VIRGIN ISLANDS	0.00	0.00	0.00
VIRGINIA	810.15	1,136.63	1,381.52
WASHINGTON	3,904.38	6,663.01	8,098.60
WEST VIRGINIA	313.01	534.17	649.26
WISCONSIN	410.24	710.63	863.74
WYOMING	1,819.61	3,025.39	3,677.23
FH TOTALS	52,685.00	89,909.55	109,281.20

FEDERAL LANDS HIGHWAY PROGRAM

FUNDING OF PUBLIC LANDS HIGHWAYS DISCRETIONARY PROJECTS SHOWN BY STATE BOUNDARY – FY91–FY93

STATE	FY 91 ALLOCATIONS ($1000)	FY 92 ALLOCATIONS ($1000)	FY 93 ALLOCATIONS ($1000)
ALABAMA	0.00	0.00	0.00
ALASKA	1,000.00	4,200.00	0.00
ARIZONA	4,000.00	4,000.00	5,800.00
ARKANSAS	2,000.00	2,000.00	0.00
CALIFORNIA	4,000.00	3,500.00	6,300.00
COLORADO	4,369.00	1,300.00	2,854.00
CONNECTICUT	0.00	0.00	0.00
DELAWARE	0.00	0.00	0.00
D.C.	1,500.00	1,900.00	3,361.00
FLORIDA	0.00	300.00	0.00
GEORGIA	0.00	0.00	0.00
HAWAII	872.00	0.00	0.00
IDAHO	2,500.00	2,500.00	3,100.00
ILLINOIS	0.00	0.00	700.00
INDIANA	0.00	0.00	0.00
IOWA	0.00	0.00	0.00
KANSAS	0.00	0.00	0.00
KENTUCKY	0.00	0.00	0.00
LOUISIANA	0.00	0.00	0.00
MAINE	0.00	0.00	0.00
MARYLAND	0.00	0.00	0.00
MASSACHUSETTS	0.00	0.00	400.00
MICHIGAN	250.00	1,518.00	0.00
MINNESOTA	0.00	0.00	560.00
MISSISSIPPI	0.00	0.00	0.00
MISSOURI	0.00	0.00	518.00
MONTANA	4,000.00	1,000.00	7,200.00
NEBRASKA	0.00	0.00	0.00
NEVADA	0.00	4,000.00	4,500.00
NEW HAMPSHIRE	0.00	950.00	0.00
NEW JERSEY	0.00	0.00	0.00
NEW MEXICO	2,000.00	3,880.00	3,700.00
NEW YORK	0.00	0.00	0.00
NORTH CAROLINA	4,500.00	5,500.00	6,000.00
NORTH DAKOTA	0.00	0.00	0.00
OHIO	0.00	0.00	0.00
OKLAHOMA	0.00	0.00	0.00
OREGON	4,500.00	0.00	5,200.00
PENNSYLVANIA	0.00	2,800.00	0.00
PUERTO RICO	0.00	0.00	0.00
RHODE ISLAND	0.00	0.00	0.00
SOUTH CAROLINA	0.00	439.00	250.00
SOUTH DAKOTA	0.00	0.00	0.00
TENNESSEE	0.00	0.00	0.00
TEXAS	0.00	0.00	0.00
UTAH	0.00	4,000.00	0.00
VERMONT	250.00	0.00	0.00
VIRGIN ISLANDS	0.00	0.00	0.00
VIRGINIA	489.00	3,300.00	0.00
WASHINGTON	3,600.00	0.00	3,350.00
WEST VIRGINIA	0.00	0.00	1,540.00
WISCONSIN	0.00	0.00	30.00
WYOMING	2,000.00	0.00	2,500.00
PLH DISCR. TOTALS	41,830.00	47,087.00	57,863.00

FEDERAL LANDS HIGHWAY PROGRAM

ALLOCATION FUNDING OF IRR PROJECTS SHOWN BY STATE BOUNDARY – FY91–FY93

STATE	FY 91 ALLOCATIONS ($1000)	FY 92 ALLOCATIONS ($1000)	FY 93 ALLOCATIONS ($1000)
ALABAMA	39.00	0.00	0.00
ALASKA	26.00	6,210.00	8,728.00
ARIZONA	17,211.00	41,965.00	56,938.00
ARKANSAS	0.00	0.00	0.00
CALIFORNIA	1,416.00	2,784.00	8,616.00
COLORADO	853.00	1,728.00	2,797.00
CONNECTICUT	0.00	0.00	0.00
DELAWARE	0.00	0.00	0.00
D.C.	0.00	0.00	0.00
FLORIDA	281.00	1,075.00	1,071.00
GEORGIA	0.00	0.00	0.00
HAWAII	0.00	0.00	0.00
IDAHO	673.00	2,423.00	1,807.00
ILLINOIS	0.00	0.00	0.00
INDIANA	0.00	0.00	0.00
IOWA	158.00	114.00	24.00
KANSAS	195.00	1,518.00	1,654.00
KENTUCKY	0.00	0.00	0.00
LOUISIANA	1.00	221.00	273.00
MAINE	101.00	361.00	1,348.00
MARYLAND	0.00	0.00	0.00
MASSACHUSETTS	0.00	0.00	895.00
MICHIGAN	318.00	902.00	644.00
MINNESOTA	1,327.00	2,049.00	9,256.00
MISSISSIPPI	529.00	542.00	888.00
MISSOURI	0.00	0.00	0.00
MONTANA	6,834.00	12,778.00	20,638.00
NEBRASKA	39.00	233.00	503.00
NEVADA	5,037.00	5,432.00	6,670.00
NEW HAMPSHIRE	0.00	0.00	0.00
NEW JERSEY	0.00	0.00	0.00
NEW MEXICO	17,477.00	26,117.00	29,271.00
NEW YORK	52.00	149.00	805.00
NORTH CAROLINA	765.00	734.00	2,320.00
NORTH DAKOTA	4,946.00	2,195.00	2,909.00
OHIO	0.00	0.00	0.00
OKLAHOMA	7,079.00	12,418.00	833.00
OREGON	2,055.00	3,973.00	3,566.00
PENNSYLVANIA	0.00	0.00	0.00
PUERTO RICO	0.00	0.00	0.00
RHODE ISLAND	0.00	81.00	0.00
SOUTH CAROLINA	0.00	0.00	0.00
SOUTH DAKOTA	2,411.00	12,435.00	12,132.00
TENNESSEE	0.00	0.00	0.00
TEXAS	1.00	1.00	6.00
UTAH	1,633.00	3,535.00	327.00
VERMONT	0.00	0.00	0.00
VIRGIN ISLANDS	0.00	0.00	0.00
VIRGINIA	0.00	0.00	0.00
WASHINGTON	4,205.00	5,931.00	8,210.00
WEST VIRGINIA	0.00	0.00	0.00
WISCONSIN	1,210.00	2,008.00	2,666.00
WYOMING	1,178.00	1,027.00	0.00
IRR TOTALS	78,050.00	150,939.00	185,795.00

FEDERAL LANDS HIGHWAY PROGRAM

FUNDING OF PARK ROADS AND PARKWAYS PROJECTS SHOWN BY STATE BOUNDARY – FY91–FY93

STATE	FY 91 ALLOCATIONS ($1000)	FY 92 ALLOCATIONS ($1000)	FY 93 ALLOCATIONS ($1000)
ALABAMA	74.72	184.88	131.00
ALASKA	89.80	496.10	0.00
ARIZONA	4,366.69	2,830.09	3,299.80
ARKANSAS	28.74	439.98	196.84
CALIFORNIA	925.54	6,746.22	13,796.17
COLORADO	149.59	86.06	65.50
CONNECTICUT	0.00	0.00	0.00
DELAWARE	0.00	0.00	0.00
D.C.	4,813.65	976.23	2,963.04
FLORIDA	0.00	339.14	0.00
GEORGIA	570.26	154.64	7.98
HAWAII	0.00	5.51	0.00
IDAHO	0.00	0.00	61.65
ILLINOIS	0.00	0.00	0.00
INDIANA	24.36	0.50	41.81
IOWA	3.55	0.48	11.41
KANSAS	0.00	0.00	0.00
KENTUCKY	0.00	0.00	0.00
LOUISIANA	0.00	0.00	0.00
MAINE	398.01	1,195.13	194.77
MARYLAND	714.09	7,413.68	4,809.14
MASSACHUSETTS	154.46	22.79	10.13
MICHIGAN	40.13	45.70	54.16
MINNESOTA	27.00	230.28	486.05
MISSISSIPPI	1,024.79	3,800.55	934.33
MISSOURI	502.57	464.26	3.86
MONTANA	4,127.27	1,141.47	3,545.58
NEBRASKA	20.89	2,089.54	196.00
NEVADA	60.00	198.71	3,588.38
NEW HAMPSHIRE	0.00	0.00	0.00
NEW JERSEY	996.84	0.52	2.65
NEW MEXICO	164.43	0.00	0.00
NEW YORK	0.00	52.00	257.85
NORTH CAROLINA	1,135.54	1,178.43	73.49
NORTH DAKOTA	25.00	0.00	7.00
OHIO	0.00	0.00	0.00
OKLAHOMA	440.00	0.00	278.00
OREGON	784.67	436.72	224.68
PENNSYLVANIA	110.50	1,324.84	940.54
PUERTO RICO	0.00	0.00	0.00
RHODE ISLAND	0.00	0.00	0.00
SOUTH CAROLINA	0.00	0.00	0.00
SOUTH DAKOTA	20.00	0.00	19.00
TENNESSEE	782.75	1,693.88	5,662.12
TEXAS	2,414.36	2,170.67	589.13
UTAH	336.60	4,131.71	2,862.94
VERMONT	0.00	0.00	0.00
VIRGIN ISLANDS	3,347.27	417.35	0.00
VIRGINIA	3,069.52	9,271.62	8,904.56
WASHINGTON	1,485.59	2,862.51	1,866.55
WEST VIRGINIA	119.13	0.00	0.00
WISCONSIN	770.00	0.00	0.00
WYOMING	4,183.08	12,675.34	13,897.97
PRP TOTALS	38,301.41	65,077.56	69,984.08

MISCELLANEOUS PROGRAMS

Mr. CARR. Last year's justification materials showed $906,049,000 in contract authority for miscellaneous programs. This year the 1995 amount is only $63,250,000, and the 1994 amount has been revised to $62,686,000.

What are the reasons and authority for the significant change in miscellaneous programs?

[The information follows:]

The fiscal year 1994 budget submission included the Hold Harmless equity programs (sections 1015(a)–1015(c) of ISTEA) within the Miscellaneous Programs category, while the fiscal year 1995 budget submission more properly includes Hold Harmless within the Surface Transportation Program category. At the time of the fiscal year 1994 budget submission, the indefinite contract authority associated with Hold Harmless was estimated at nearly $843 million. Therefore, the contract authority for the Miscellaneous Programs category decreases by that amount, from $906 million to $63 million, between the fiscal year 1994 and fiscal year 1995 submissions.

The revision of the contract authority for the remaining miscellaneous programs, from $63.250 million to $62.686 million, is due to the rescissions enacted in P.L. 103–122, the fiscal year 1994 Department of Transportation and Related Agencies Appropriations Act. These rescissions of unobligated balances associated with programs subject to the Federal-aid highways obligation limitation are offsets to the fiscal year 1994 contract authority.

Mr. CARR. For the record, provide a detailed breakout of the elements composing miscellaneous programs in both fiscal years 1994 and 1995.

[The information follows:]

MISCELLANEOUS PROGRAMS—AS PRESENTED IN THE FISCAL YEAR 1995 BUDGET SUBMISSION

PROGRAMS AUTHORIZED PRIOR TO ISTEA[1]

Consolidated primary, Rural secondary, Urban systems, Planning, Hazard elimination, Rail/Highway Crossing, and Combined Road Plan.

PROGRAMS AUTHORIZED UNDER ISTEA

Ferry boat construction, Scenic byways technical assistance, Interim scenic byways,[2] University transportation centers, University research institutes, Tax evasion, Bureau of transportation statistics, and Safety Belt/Helmet incentives.[3]

LIMITATION ON GENERAL OPERATING EXPENSES

Mr. CARR. The 1995 request for general operating expenses of the Federal Highway Administration is $598,545,000, an increase of nearly $130,000,000 above the 1994 level. Of the total increase, $75,000,000 is for the Intelligent Vehicle-Highway System program and $18,475,000 is for other highway research and development. Full-time equivalents decline by 52 for savings of $2,750,000. What is the distribution of the FTE reduction in Washington and the field?

[The information follows:]

We estimate that approximately 27 FTEs and $1.428 million would be related to the Washington headquarters and 25 FTEs and $1.322 million for the field.

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[1] These programs received no new contract authority beyond fiscal year 1991, and will have obligations only through fiscal year 1994, after which time they expire.

[2] This program has contract authority and estimated obligations only through fiscal year 1994.

[3] This program has no new contract authority in fiscal year 1994–1995, and is estimated to have obligations only through fiscal year 1994.

Mr. CARR. What are the specifics behind the additional $933,000 requested for health benefits?

[The information follows:]

The annual rate increases for the government share of health insurance premiums is published by OPM at the beginning of each fiscal year. For fiscal year 1993 the increase was 12 percent. Based on that expense, we have estimated a 12 percent increase, or $933 thousand, for fiscal year 1995.

Mr. CARR. What is total amount included within the LGOE limitation for health benefits?

[The information follows:]

Our fiscal year 1995 budget includes $8.708 million for health benefits.

RENTAL PAYMENTS

Mr. CARR. The request reflects $893,00 for anticipated rent increases in 1995. Subsequent to the submittal of the budget, the General Services Administration advised the Committee that charges would actually be declining in 1995 for certain departments, among them the Department of Transportation. Based on the later information, what should the revised number be for rent charges?

[The information follows:]

Based on revised information from the General Services Administration, new GSA rent rates for certain locations will reduce the Federal Highway Administration's projected increase to cover GSA rent charges. The Federal Highway Administration's revised increase to cover GSA rent charges in fiscal year 1995 is $687,000. This represents a $206,000 reduction in our requested funding level.

HIGHWAY RESEARCH AND DEVELOPMENT

Mr. CARR. Included in the LGOE limitation is the highway research and development program. The 1995 requested program level is $61,000,000, an increase of $18,475,000 above 1994. The area reflecting the largest increase in 1995 is safety, which goes from $5,738,000 in 1994 to $11,284,000 in 1995. The Committee does not believe that the justification material by itself supports a doubling of the highway research and development effort. Provide additional data in support of the requested amount, including detail of how the $11,284,000 would be allocated among highway safety information management, human factors research for highway safety, and highway safety design practices and criteria.

[The information follows:]

In fiscal year 1994 FHWA requested $5,738,000 in GOE funds for highway safety research. FHWA also planned to use $4,212,000 ISTEA funds for highway safety. The two sources of funds taken together were $10,050,000 for highway safety research. In fiscal year 1995 FHWA requested $11,284,000 which is $1,234,000 greater than the total fiscal year 1994 highway safety funds.

The distribution of how the fiscal year 1995 funds will be spent is as follows:

Research area:	*Percent*
Information management	15
Human factors research for highway safety	30
Advanced traffic control devices	11
Pedestrian and bicycle safety	12
Highway safety design practices and criteria	31
Total	100

Mr. CARR. Describe how the FHWA allocates resources among the various categories of safety research, and describe how the

FHWA coordinates with the National Highway Traffic Safety Administration to avoid duplication of efforts.

[The information follows:]

The FHWA has established a process for allocating resources among the various categories of safety research. This process involves identifying high priority research areas based on a review of accidents trends and problems identified by the highway community. The allocation among the high priority areas is accomplished through a series of working group meetings.

The FHWA and NHTSA coordinate their research activities in areas of common interest. This coordination is achieved through both formal and informal means. For example, in the area of pedestrian and bicyclist research a DOT working group has been established which meets periodically to review and discuss both ongoing and planned research activities. In the area of roadside safety coordination is achieved through joint funding of research that is of mutual interest. FHWA and NHTSA also meet regularly to review and coordinate research activities in the areas of driver behavior, safety information management, and highway visibility during adverse weather conditions.

Mr. Carr. Provide details on the allocation of resources for 1992, 1993, and 1994 to date by organization or company, indicating which entities are for profit and which not for profit.

[The information follows:]

The allocation of resources for 1992, 1993, and 1994 are provided separately to the Committee. Detailed records showing recipients are not available for all expended funds. The following table shows the total amounts and the breakdown by organizations for profit and not for profit:

Type of organization	1992	1993	1994
For-Profit	50,310,401	62,332,694	72,330,087
Not-for-Profit	17,071,613	43,588,392	36,144,836
Total	67,382,014	105,921,086	108,474,923

CURB CUT RAMPS

Mr. Carr. One of the planned activities in 1995 for the pedestrian and bicycle safety category is corroboration of the Architectural and Transportation Barriers Board's work on curb cut ramps. Why shouldn't the Access Board be conducting this research?

[The information follows:]

The Access Board is currently funding an initial study in this area. As FHWA is committed to providing a highway system that is "friendly" to all users it is appropriate to cooperate with the Access Board in the research effort.

CATHODIC PROTECTION OF BRIDGES

Mr. Carr. The materials activity within highway research and development increases by 52 percent in the 1995 budget request, from $3,685,000 to $5,614,000. What work related to cathodic protection of bridges does the high priority areas of corrosion control of structural elements include?

[The information follows:]

Currently, the structures division has six studies relating to cathodic protection in progress. They are: cathodic protection developments for prestressed (concrete) members, field evaluation of cathodic protection on prestressed concrete bridge members, long term effects of cathodic protection on prestressed (concrete) members, and sacrificial cathodic protection systems I, II and III. The first of these studies is virtually complete, but the others have a way to go.

Mr. Carr. Show the amounts allocated to the four high priority areas for 1993, 1994, and 1995 proposed.

[The information follows:]

[Allocation in thousands]

High priority area	Fiscal years—		
	1993	1994	1995
Geotechnology	$825	$1,225	$1,475
Corrosion control of structural elements	2,099	1,500	1,862
Structural composites and adhesives	2,000	600	1,660
Performance related specifications	140	2,700	1,780

PAVEMENT RESEARCH AND DEVELOPMENT

Mr. CARR. The 1995 request for the pavement activity of the research and development is $8,737,000, an increase of $1,478,000 above the 1994 level. Explain the research to be conducted in 1995 on crumb rubber modified asphalt. What is the estimated cost of this research?

[The information follows:]

Research will be underway in 1995 to develop guidelines for the pavement structural design, asphalt mix design, hot mix asphalt production, and construction of asphalt pavements containing crumb rubber modifier (CRM). This research will include the long term performance evaluation of in service pavements containing CRM to validate the guidelines. The total cost estimate for this research exceeds $4 million of which $1.5 million is 1995 funds. Research on accelerated evaluation of the performance of CRM asphalt pavements is planned for initiation in 1995. This work is designed to provide early validation of guidelines to facilitate the implementation of CRM technology. This research is estimated to cost in excess of $1 million of which $600 thousand is planned for 1995 funding. In addition studies related to asphalt worker exposure to CRM asphalt fumes and health effects are planned to be underway with the National Institute of Occupational Safety and Health and the Environmental Protection Agency. Cost estimates for this effort exceed $500 thousand. At this time fiscal year 1995 funding for CRM in the pavements activity of the highway research and development program is $2.1 million.

STRUCTURES RESEARCH

Mr. CARR. A total of 7,614,000 has been requested in 1995 for research on structures. This represents an increase of 56.6 percent above the amount available in 1994. In 1993, the FHWA provided $400,000 to the New Mexico Alliance for Transportation Research "to evaluate several sophisticated nondestructive technologies as phase II of a larger three phase $1,600,000 study on the I–40 bridge in Albuquerque, New Mexico." Please explain exactly what this research seeks to determine. Indicate the total cost, schedule, and accomplishments to date. Also indicate whether the initial contract was the result of an unsolicited proposal and whether the contract was awarded competitively.

[The information follows:]

The $400,000 represents phase II of a research proposal by the Strategic New Mexico Alliance for Transportation Research (ATR) to develop nondestructive evaluation techniques for studying the structural integrity of bridges. The long range objective, in plain terms, is to see if existing NDE methods can be enhanced or new NDE methods developed to permit reliable monitoring of existing bridges and the determination of the severity and location of serious defects in these bridges. To that end, a bridge on I–40 in Albuquerque, that is slated for replacement, was to be instrumented with various NDE systems and then tested. Successful development of such NDE techniques would represent a major advance in bridge inspection and safety monitoring. On a broader sense, this project represents an attempt to adapt defense-oriented technology to infrastructure preservation and renewal.

The total cost of this NDE research by ATR is $1.8 million of which $1.4 million is state SP&R funds plus the $400,000 in FHWA RD&T research funds to which this question alludes. Phase II was slated to last 24 months and be finished by the end of 1994. At this point, the initial installation and testing of NDE systems has been done and the data is being studied. This summer, ATR plans to conduct further testing of the more promising methods. The researchers expect to finish on time or close to it.

The contract resulted from an initial solicitation by the New Mexico Highway Department for research in nondestructive evaluation of bridges and was competitive within New Mexico. The contribution of $400,000 by FHWA was in response to a direction, contained in Senate Report 102–351 and Conference Report 102–924, that the fiscal year 1993 RD&T appropriation be made available to the ATR for development of NDE techniques to study the structural integrity of bridges.

ENVIRONMENTAL RESEARCH

Mr. CARR. In the environment research activity, the budget includes $5,760,000, an increase of $1,680,000 above the 1994 amount. One of the program elements to be emphasized in 1995 is providing technical assistance to the states, MPOs, and local governments in response to the issuance of the Environmental Protection Agency's conformity regulation. Please explain how this technical assistance will be made available. Also, indicate whether assistance concerning compliance with nitrogen oxide standards will be given any special emphasis.

[The information follows:]

One of the primary vehicles that FHWA will use to provide technical assistance to states, MPOs, and local governments is a grant to the National Association of Regional Councils (NARC), the national association of MPOs. Co-funded with the Environmental Protection Agency (EPA) and the Federal Transit Administration, the intention of this project is to conduct air quality planning and policy research and to provide a forum where practitioners, mostly at the MPO level, can share information, offer technical assistance, and provide input to personnel at all three federal agencies. Examples of already completed work include a series of technical workshops on the employee commute options program, the development of a manual of advanced transportation and air quality modeling practice, a regularly-published newsletter on air quality issues, extensive forums on related transportation issues, and a series of conferences on transportation and air quality planning. Ongoing efforts include a report on the effectiveness of transportation control measures, a study of effective public education strategies, and a series of informational papers on air quality issues intended for MPO officials. This grant was established in fiscal year 1992 and FHWA is planning to renew the activity in fiscal year 1994 and fiscal year 1995.

FHWA regularly makes its own technical experts on air quality modeling available to the states and MPOs to the extent possible. FHWA experts on urban planning and air quality modeling have recently traveled to both Delaware and Ohio to assist those states in reviewing their models in relation to nitrogen oxides (NO_X). We have been assisting the states in assessing the reductions that can be expected from NO_X control measures such as speed enforcement and various travel demand measures.

FHWA is planning to participate with EPA in their long range effort to enhance their mobile source emissions models. FHWA wishes to stress the effects of fleet age on mobile source emissions and the methods used to estimate heavy duty diesel vehicle emissions. Both of these topics are important to improved understanding of NO_X emissions.

Another NO_X related project is now before the committee that selects projects for the National Cooperative Highway Research Program. It will characterize the activity and emissions levels of heavy duty vehicles which are significant contributors to the NO_X problem. FHWA's representatives will strongly support the project. Should it be selected for the program, FHWA may provide additional funding if necessary. Should it not be selected, FHWA may undertake the research itself.

POLICY RESEARCH

Mr. CARR. The 1995 request for policy research is $7,481,000, a 9 percent increase above the 1994 level. As applicable for each of the 13 research areas listed for 1994 and the 16 1995 areas, provide the appropriate section reference in ISTEA that is the basis for the research.

[The information follows:]

All the 13 research areas listed in FHWA's fiscal year 1995 budget submission are based on programs established in section 6001 of the ISTEA.

NATIONAL PERSONAL TRANSPORTATION SURVEY

Mr. CARR. One of the items listed for 1995 is conducting the National Personal Transportation Survey. Why is this work being performed under this activity and not by the Bureau of Transportation Statistics?

[The information follows:]

The National Personal Transportation Survey (NPTS) is still being prepared by staff within FHWA. There are several reasons for this. First of all, FHWA has the expertise to perform the survey having performed the survey before. Secondly, the formation of the Bureau of Transportation Statistics (BTS) was intended to supplement, not replace, the statistics offices within the modes. Thirdly, FHWA has closely coordinated with BTS in order to seek survey design and implementation assistance and avoid any duplication of effort.

FISCAL YEAR 1995 PLANNING RESEARCH BUDGET

Mr. CARR. The $5,264,000 budget request for planning research reflects a 20 percent increase above 1994. Since the statewide planning and metropolitan planning regulation was issued last October, why does this activity require such a large percentage increase in 1995?

[The information follows:]

The goal of the planning research program is to develop and disseminate improved intermodal statewide and metropolitan transportation planning methods, congestion management procedures, and an improved Highway Performance Monitoring System (HPMS) to assist State and local transportation agencies and the DOT in meeting the legislatively mandated ISTEA intermodal planning and CAAA air quality planning requirements.

Now that the planning regulations have been issued, planning research has become even more important to develop reliable and valid technical tools, including travel demand models and GIS aids. These tools are needed for states and MPOs to meet the new and expanded requirements which include the legislatively mandated 15 factors to be considered in the metropolitan planning process and 23 factors to be considered in the statewide planning process. Extensive technical assistance will need to be provided to assist the states and MPOs in meeting these requirements as soon as possible.

In addition, a portion of the research budget will be used to enhance the tools (HPMS, GIS) needed by the FHWA to report to Congress on the status and condition of the nation's transportation infrastructure and to develop and implement the NHS. An increase in funding is also needed to undertake research that had been deferred or delayed to cutbacks in earlier budget requests and to undertake research requested by the Office of the Secretary and the GAO; such as the effects of transportation demand management measures and multimodal evaluation procedures which are necessary to make better transportation infrastructure decisions.

GEOGRAPHIC INFORMATION SYSTEM IN NORTH CAROLINA

Mr. CARR. The conference agreement on the 1994 Transportation Act included $1,500,000 for geographic information system development for the State of North Carolina. Please bring the Committee up to date on the status of this work. Has the 1994 funding been awarded yet?

[The information follows:]

The North Carolina Department of Transportation (NCDOT) was provided with $1,000,000 in 1992, $1,200,000 in 1993, and $1,500,000 in 1994 for the development of a geographic information system (GIS). To develop a digital database (including layers for transportation, hydro, and other important geographic features), the NCDOT has been digitizing from the 562 United States Geological Survey (USGS) quad maps for the State. To date, this work is about 80 percent completed. Since many of these quad maps are out of date, the digitized data will be updated using aerial photographs and construction drawings. When the work is completed, it will become part of USGS's national GIS database.

COMMERCIAL DRIVERS SLEEP APNEA RESEARCH

Mr. CARR. The motor carrier research activity reflects a large increase in 1995, rising from $5,345,000 in 1994 to a requested $8,804,000 in 1995. Elements being explored in the commercial driver proficiency areas include driver fatigue and medical qualifications. Provide the Committee the status of the research conducted by the American Trucking Association related to apnea and the effects of long distance driving, along with any tentative findings and scheduled completion date.

[The information follows:]

A task order contract was signed with the American Trucking Associations' Trucking Research Institute (TRI) in September 1993 that included a task on studying the incidence of sleep apnea among commercial truck drivers. The TRI has begun a literature review of current technologies used to assess persons with sleep apnea as well as laws and rules relating to driving and sleep disorders. Initial efforts to contact potential companies and drivers to participate in the study have also begun. Because the study is in its initial stages, no data have been collected thus far. The study is scheduled to run through 1996.

The ongoing baseline study of driver fatigue and alertness has concluded its collection of physiological and psychological data from driver engaged in over-the-road operations in the United States and Canada. Analysis of these data for significant findings about commercial driver alertness are continuing. Both the FHWA and TRI are currently planning to conclude the baseline study by the end of the fiscal year. The related study on commercial driver rest and recovery is in its initial stage involving the signing of an interagency agreement.

AUTOMATED COMMERCIAL ROADSIDE INSPECTIONS

Mr. CARR. The conference report accompanying the 1994 Department of Transportation and Related Agencies Appropriations Act included $425,000 for development and testing of automated commercial roadside inspections. Is this work under contract yet?

[The information follows:]

The conference report accompanying the 1994 Department of Transportation and Related Agencies Appropriations Act provided $425,000 to "develop and test various technologies to automate commercial vehicle roadside inspections, including those that allow computerized imaging and reporting on the safety conditions of the underside of a commercial vehicle."

In response to this mandate, the Office of Motor Carriers is drafting a request for proposals that will result in a contract to develop and test imaging technologies to automate commercial motor vehicle roadside inspections as described above. We anticipate the contract award and work to begin in late fiscal year 1994. This effort will be coordinated with existing contracts designed to increase the efficiency of roadside inspection activities, including; innovative brake testing devices, standardized electronic diagnostic devices for maintenance and expert systems that will assist the enforcement officer in deciding which vehicles and drivers to inspect.

Mr. CARR. Similarly, the 1994 Act included $150,000 for the development of guidelines for inspection and maintenance of wheels and bearings. What is the status of this effort?

[The information follows:]

We are evaluating whether this contract would duplicate research already done by ATA. The development and dissemination of model guidelines on wheels and wheel bearings has been addressed by the motor carrier industry, specifically The Maintenance Council (TMC) of the American Trucking Association. TMC has produced recommended maintenance and inspection practices which are distributed by both TMC and manufacturers. We are reviewing the existing research on this subject before we initiate the study to develop additional guidelines.

MOTOR CARRIER RESEARCH PROGRAM

Mr. CARR. The Motor Carrier research program is seeking a 65 percent increase in 1995. What are the FHWA's 5–10 highest motor carrier research efforts for 1995 and the associated funding requested?

[The information follows:]

In "Moving Out, the FHWA's 5-Year Motor Carrier Research and Development Plan," the Office of Motor Carriers (OMC) developed a strategic approach to research for the 1990's. Potential projects were grouped into 7 selected categories designed to reflect the organization's major safety and productivity goals and activities. New research in fiscal year 1995 falls under the following categories: driver proficiency; vehicle safety and performance; regulatory compliance and enforcement; and safety analysis and information.

Driver Proficiency. In fiscal year 1995, OMC is pursuing the plan's goals and proposed projects. A major new project will address driver training and proficiency needs by validating potential training simulators. These simulators offer States, motor carriers and training organizations efficient and effective methods to prepare commercial motor vehicle (CMV) drivers for safe operation on the nation's highways and to re-check the drivers proficiency over time. Drawing on pilot studies in several states, another driver-related safety project will be done with states to implement, at the state level, a medical evaluation package that states can use in certifying CMV drivers. A determination of effective fitness for duty technologies for use in-vehicle will also be completed. Funding associated with these activities is projected at $2 million for fiscal year 1995.

Commercial Vehicle Safety and Performance. Several planned vehicle safety and performance projects also will be initiated. A study to evaluate and develop effective anti-lock brake inspection technologies and procedures will generate guidance to help inspectors accurately check the increasing number of trucks and trailers with ABS equipment. Another project will identify the causes of incompatibility of tractor and trailer brake system components and will recommend effective countermeasures. Standards for CMV tire tread depth, as well as the safety and reliability of retread tires in CMV operations, will be explored to determine if new standards are needed. Training for inspectors on the safe handling of alternative fuels in CMVs will be undertaken in order to enable them to safely assess vehicles using the cleaner fuels. As part of our efforts to improve the motor coach safety in particular, a model preventative maintenance guide for motor coach mechanics will be developed in cooperation with the industry. Recognizing that cargo tank vehicles carrying hazardous materials present a special concern for highway safety, a study of crashes involving them will be undertaken to identify structural or other changes that may reduce their accident and injury risk potential. Funding associated with these activities is projected at $1 million for fiscal year 1995.

Safety Analysis and Information. Noting the success of "black box" technologies in other transportation modes, our research will consider the viability of using onboard recorders to document driver and vehicle accident information. On an ongoing basis, projects will continue to provide timely and accurate information about motor carrier status and accident rates. Funding associated with these activities is projected at $2.3 million for fiscal year 1995.

Regulatory Compliance and Enforcement. We will complete phase 2 of our zero based regulatory review and develop model performance based regulations. Also in fiscal year 1995, we will initiate a review to determine the extent of shipper influence on motor carriers and drivers adherence to established hours-of-service rules.

Funding associated with these activities is projected at $2 million for fiscal year 1995.

Mr. CARR. For the nine programs elements in the total highway research and development program, for fiscal years 1992, 1993, and 1994 to date, indicate the dollar amount of contracts that were (a) awarded competitively, (b) awarded sole source without competition, and (c) awarded pursuant to a peer review Process.

[The information follows:]

	Fical year—		
	1992	1993	1994 through 3/17
Competitive	$24,700,321	$36,835,747	3,257,962
Sole source	11,438,495	8,641,041	2,269,917
Peer review	1,773,503	1,186,336	0

PEER REVIEW PROCESS FOR RESEARCH AND DEVELOPMENT

Mr. CARR. Explain the peer review process used for the highway research and development program, along with the guidance provided to contracting officers regarding the process.

[The information follows:]

When a broad agency announcement is used as another competitive procedure to make a competitive selection of basic and applied research, and that part of development not related to the development of a specific system, a peer or scientific review is necessary. This is because the nature of the requirement does not permit the development of an adequate or sufficiently defined statement of work to use the normal competitive research request for proposals, under which proposals are evaluated against a common statement or work. Under a broad agency announcement, evaluation reports on individual proposals will be necessary, but proposals cannot be compared against each other, since they are not submitted in accordance with a common statement of work. Quite often the program office does not have the resource to adequately evaluate the technical proposals submitted under a broad agency announcement. Program offices should be advised that they must have adequate peer or scientific review in such situations, and that it is permissible to use experts from outside their office, or outside the government to form their required peer review team.

MOTOR CARRIER SAFETY PROGRAM

Mr. CARR. You are requesting a substantial (28 percent) increase in the obligation limitation for the Motor Carrier Safety Assistance Program from $65 million in fiscal year 1994 to $83 million in fiscal year 1995. Why is such a large increase justified and what improvements in highway safety do you anticipate as a result?

[The information follows:]

Full funding from MCSAP is an investment in new enforcement technologies and activities which will significantly increase the efficiency of the states' programs. Most of the increase in funds will support new and enhanced safety enforcement initiatives. A small percentage of the increase will provide full funding for the states as they work to complete and join agreements for fuel tax collection and vehicle registration.

New and enhanced safety enforcement technologies and activities include roadside data collection and communication systems, border enforcement, pilots for adding medical qualifications to CDLs, and projects to ensure that out-of-service vehicles are repaired before they return to the highway. In addition, increased enforcement funding will be provided for the states to develop innovative enforcement strategies, increase traffic enforcement to target unsafe drivers, and educate the public on sharing the road with large trucks.

If MCSAP is not fully funded, states will be faced with cutbacks from their current level of roadside inspections and carrier reviews. Further, the states will not be able to begin new innovative programs or enhance the effectiveness of current activities.

ROAD SIDE INSPECTIONS

Mr. CARR. How will FHWA ensure that states do not simply substitute the increased federal resources for state resources for roadside inspections?

[The information follows:]

MCSAP is intended to enhance and add to the states' own commercial vehicle safety activities. Since the MCSAP began in the early 1980's, there have been requirements in the authorizing legislation and the implementing regulations (49 CFR 350) which prohibit the states from substituting federal funds for state funds. This maintenance of effort (MOE) commits the states to continuing their past efforts in commercial motor vehicle safety activities.

The criteria for determining a state's MOE is set in authorizing legislation. Also, 49 CFR Part 350 requires states to certify in their State Enforcement Plan (SEP) that the average aggregate expenditure of funds will be maintained by the state for commercial motor vehicle and highway hazardous materials safety programs.

Process reviews and audits are conducted by FHWA as part of its grants management functions to ensure that the states are meeting these requirements. If, at anytime, it is determined that a state has failed to meet its MOE requirement, an amount equal to the deficiency would be deducted from the state's current allocation.

EQUIPMENT REPLACEMENT

Mr. CARR. The justifications indicate that the 1995 request will allow for replacement of aging equipment that has been deferred in recent years. How much of the additional funds requested will be allocated to equipment replacement and what type of equipment will be purchased?

[The information follows:]

We estimate that the states will use a small percentage of their basic grant allocations for replacement of computers, motor vehicles, and other equipment. Specific funds will not be allocated for this purpose.

Because the level of MCSAP funding has not increased with inflation, many states have delayed equipment purchases rather than cutting personnel costs. At this point, equipment replacement is critical in some states. Many officers are using vehicles with high mileage which is resulting in increased major repairs. In addition, computer equipment, including laptops, must be updated to accommodate use of developing technologies. Some states have also delayed purchasing uniforms and other required personal equipment, which contributes to the officers' safety and performance and must be replaced soon.

MCSAP agencies must be funded at a level which not only supports personnel costs, but which allows for timely replacement of required equipment to ensure efficient management of their programs.

COMPLIANCE REVIEWS

Mr. CARR. In recent years, the Office of Motor Carriers has placed more emphasis on in-depth compliance reviews of motor carriers by state as well as federal inspectors. What is the rationale for this shift in emphasis?

[The information follows:]

Compliance reviews are the in-depth reviews of motor carriers safety management practices and compliance with the safety regulations. The compliance review is performed on motor carriers identified by the criteria listed below:

Factor one is the potential severity of accidents in which the carrier is likely to be involved which is measured by the commodity classes being transported, with greater weight given to hazardous materials or passengers transported.

Factor two is the exposure of the motor carrier to the nation's highways, which is measured by miles traveled by the motor carrier and months elapsed since the previous rating.

Factor three is the past safety performance of the motor carrier which is measured by the result of roadside inspections and the recordable preventable accident rate.

Factor four is the past compliance of the motor carrier with the Federal Motor Carrier Safety Regulations (FMCSRs) and the Hazardous Materials Regulations which is measured by the past safety fitness rating, parts of the FMCSRs rated unsatisfactory, and the number of prior enforcement cases.

This program has demonstrated that as the safety and compliance of carriers improve, their accident rates generally decline. The FHWA also recognizes that with limited resources it will be impossible to rate all motor carriers.

Mr. CARR. Will increased safety compliance reviews (CRs) by state inspectors come at the expenses of additional roadside inspections?

[The information follows:]

No, with full funding for MCSAP, the states will maintain the current level of roadside inspections. Part of the increased number of CRs performed will be by state inspectors who are no longer performing safety reviews. The safety review is being replaced with an enhanced education and technical assistance contact. This will include new educational information and materials that will be available to individual motor carriers and groups of motor carriers to assist them in complying with the regulations and preventing accidents. It will include, for example, brochures, accident countermeasure techniques, training videos, and training.

Also, a portion of the $18 million increase in MCSAP funding will be used to fund the increase in the number of CRs performed by state inspectors.

Increasing the number of CRs performed by state inspectors is part of our goal of having our state partners fully participate in all aspects of a comprehensive motor carrier safety program. The CRs are an important element of this program as they evaluate motor carriers' safety management practices in addition to compliance with regulations. They are the tool for the in-depth assessment of motor carriers' safety/compliance.

PROGRAM EVALUATIONS

Mr. CARR. Has the Office of Motor Carriers conducted any program evaluations to determine whether additional safety compliance reviews or roadside inspections have the greatest safety payoff?

[The information follows:]

A major safety strategy is building a state and federal safety compliance and enforcement program that targets problem motor carrier operations for improvement. The roadside inspection and the on-site compliance reviews are both important tools and complement each other in changing the safety behavior of problem motor carrier operations and reducing the risks of death, injuries, and property damage on our nation' highway.

The FHWA is continually analyzing the data and evaluating the national program to find the optimal balance of activities that supports the strategy of contacting identified problem motor carrier operations for compliance reviews without significantly reducing the roadside inspection data base or our ability to immediately remove high risk drivers and vehicles from the highway.

The positive results in the reduction of accidents, fatality rates, reduced driver/vehicle out-of-service orders, violation rates, and problem motor carriers achieving compliance are the result of these comprehensive safety programs that incorporate both the elements of roadside inspections and motor carrier reviews. Therefore, the greatest safety payoff to highway safety is the balancing of these compliance and enforcement activities in an efficient and effective manner to maximize the use of state and federal resources.

SAFETY REVIEWS

Mr. CARR. Please provide a breakdown of the number of safety reviews conducted and the resulting safety rating for the last three years.

[The information follows:]

The number of safety reviews entered in the Motor Carrier Management Information System (MCMIS) for each fiscal year is as follows:

Fiscal Year	Total	Satisfactory	Conditional	Unsatisfactory
1991	16,196	6,954 (43%)	5,628 (35%)	3,614 (22%)
1992	12,299	5,742 (47%)	3,935 (32%)	2,622 (21%)
1993	10,357	4,894 (47%)	3,311 (32%)	2,152 (21%)

There has been a decrease in the number of safety reviews (SRs) conducted by FHWA and the states in the past few years. This is understandable since the original purposes of the SRs were to rate all motor carriers, to identify problem motor carrier operations, and to provide educational and technical assistance (ETA) during the initial motor carrier contacts.

Now, with increased safety performance data available from SAFETYNET and MCMIS, FHWA has targeted problem carriers and generated more CRs. CRs are much more in-depth than the SRs, and are a better indicator of a carrier's safety compliance. Recognizing that the ETA aspects of the SR program continue to have great value, we are in the process of developing an enhances ETA program to be utilized during compliance reviews and other contacts with industry. This will include new educational information and materials that will be available to individual motor carriers and groups of motor carriers to assist them in complying with the regulations and preventing accidents.

Mr. CARR. How many motor carriers has FHWA closed down due to unsatisfactory safety ratings over the last three years?

[The information follows:]

The following are the numbers of carriers that were issued operations out-of-service orders during each fiscal year.

FY 1991—11,
FY 1992—19,
FY 1993—25.

Mr. CARR. What civil fines have been assessed and how much has been collected in each of the last three years?

[The information follows:]

The amounts listed below represent the total dollars initially assessed through claim letters, and the total dollars settled for all civil enforcement cases closed during the given fiscal year.

Fiscal year	Assessed	Collected
1991	$9,891,985	$8,387,583
1992	12,142,209	10,155,278
1993	12,122,027	10,026,083

ROADSIDE INSPECTIONS

Mr. CARR. The Office of Motor Carriers may be considering eliminating its requirement that states conduct 25 percent of roadside inspections during off-peak hours so that unsafe vehicles cannot evade detection. If this is true, what would be the benefit of eliminating this requirement?

[The information follows:]

The goal of conducting 25 percent of roadside inspections was established as many States were just beginning in MCSAP. The intent was to ensure that inspections are conducted throughout a 24-hour period. This goal has not changed and we are working with those states that are not meeting this goal to ensure that their full program, including enforcement activities beyond MCSAP, meet the intent of this requirement.

Mr. CARR. Which states currently do not meet the 25 percent off-peak hour inspection requirement and what is the Office of Motor Carriers doing to improve compliance?

[The information follows:]

This requirement was established to prevent states from concentrating inspection activities only during daylight hours. This policy helps to ensure that commercial motor vehicle regulations are enforced at various times and locations to provide more complete exposure to potential violators.

Delaware, Georgia, New York, Ohio, Pennsylvania, Utah, Virginia, West Virginia, and the District of Columbia reported below 25 percent in fiscal year 1993. The lowest, Ohio, was experiencing a statewide prohibition on payment of shift differential or overtime, thereby requiring inspections to be done during normal hours. This temporary difficulty has been resolved. Shortfalls in other states are addressed and resolved as they are identified. Nationally, 38 percent of all inspections in fiscal year 1993 were conducted during off-peaks periods.

LEVEL I INSPECTIONS

Mr. CARR. Approximately 80 percent of the states participating in MCSAP currently meet the program's requirement that 30 percent of roadside inspections be level I inspections. Which states are not meeting this requirement and what is the Office of Motor Carriers doing to improve compliance?

[The information follows:]

In the early years of the MCSAP, FHWA required that at least 75 percent of each state's total inspections be level I. The level I inspections are important because vehicles that pass these inspections receive a CVSA decal which limits roadside reinspection of that vehicle for the next three months. This benefits the industry in saving time on reinspections and benefits the states in not reinspecting vehicles that have recently been inspected. As the states' programs have matured, we have provided the states more flexibility to design their enforcement program with the mix of enforcement strategies that best meets their state's needs.

For example, sometimes a level I inspection cannot be conducted because of the location of the inspection or adverse weather conditions. This is particularly true in urban areas where many of the local agencies operate, and northern tier states which experience severe winter weather conditions. Further, level II (walk-around) and level III (driver only) inspections may be more effective in detecting certain violation types. Our data indicate that level III inspections are more effective in detecting driver violations, such as falsification of records of duty status and other hours-of-service related violations.

In view of this, 30 percent of states' total inspections are currently required to be level I. FHWA believes this allows the states the flexibility to conduct the level of inspection which is adaptable to the specific geographical location and weather conditions, or which may address a specific problem or emphasis area unique to that state. We will work with those states that want to experiment with a different mix of inspection levels to evaluate the impact on the national program.

The States of Alabama, Iowa, Illinois, Maryland, Nebraska, Ohio, Oklahoma, Texas, and West Virginia fell below the goal of 30 percent level I inspections. The two lowest, Iowa and Illinois, have large numbers of inspections performed by fully uniformed traffic officers, many times as a result of a traffic enforcement contact. These inspections, of necessity, are usually level II or III, thereby diluting the overall percentage of level I inspections. The other states have level I percentages varying between 22 and 29 percent, and any shortfalls that occur are addressed. In some instances, these percentages are impacted by the inclusion of level II and III inspections not done with MCSAP funding. Even so, in fiscal year 1993 the national ratio of level I inspections to all inspections was 47 percent.

Over the next few year, emerging IVHS technologies, such as the brake testing dynamometer and roadside data access and communication will increase the speed and efficiency of the roadside inspection process. These technologies will redefine our roadside inspections and enforcement strategies.

Mr CARR. How many of the roadside inspections performed in 1993 were the more comprehensive level I inspections as compared to 1992, and how did the out-of-service rates compare on these for both drivers and vehicles?

[The information follows:]

In 1992, 60 percent of MCSAP inspections were level I, with a vehicle out-of-service rate of 36.8 percent, and a driver out-of-service rate of 5.85 percent. In fiscal year 1993, 54 percent of all inspections were level I, with a vehicle out-of-service rate of 34.8 percent and a driver out-of-service rate of 4.8 percent.

OUT-OF-SERVICE RATES

Mr. CARR. What have been the out-of-service rates for level II and level III inspections?

[The information follows:]

The following chart shows the percentage of vehicles and of drivers placed out of service for level II and level III inspections for the last three fiscal years.

[In percent]

	Fiscal year		
	1991	1992	1993
Level II:			
Vehicle	21.4	22.16	20.5
Driver	8.3	8.6	8.0
Level III: Driver	20.4	15.27	13.4

The different levels of inspections provide the enforcement agency with several "tools" for various enforcement activities. The states design their mix of the different levels of inspection based on commercial motor vehicle enforcement problems in their state.

Level II Inspections, also known as walk-around inspections, provide for detection of vehicle violations which are obvious by simply walking around the vehicle (i.e., a flat tire). It also includes the driver portion of the National Uniform Inspection criteria. It was developed to allow uniformed officers to conduct inspections without requiring them to go under the vehicles (as is required by level I inspections) to find vehicle violations. The level II inspection is also employed during severe weather, or at sites where the complete level I inspection is not feasible or would present a safety hazard to the inspector.

Level III inspections, otherwise referred to as driver only inspections, were also developed to allow for conditions not conducive to level I requirements. This level has been found to be more effective in detecting certain driver violations than the comprehensive level I, and are especially useful during traffic enforcement activities.

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM DISTRIBUTION FORMULA

Mr. CARR. ISTEA requires that FHWA develop an improved MCSAP distribution formula that provides incentives to states with innovative, successful, cost-efficient or effective programs. What steps has the Office of Motor Carriers taken to implement this provision.

[The information follows:]

The FHWA has met the ISTEA requirement for improving the formula distribution. In the rulemaking implementing the requirements of the ISTEA for MCSAP, the FHWA explored several alternatives for the formula distribution factors. Based on the comments to the docket from the states, industry, and others, we determined formula factors based on the size of the motor carrier population operating in each state. To be eligible for these funds, the state must achieve a number of things such as compatible regulations, data requirements, and uniforms enforcement. In addition, supplemental and special grants are provided for new and innovative enforcement strategies.

Further, the OMC has announced an interim final rule to modify the MCSAP distribution formula which limits the participation of states that have incompatible intrastate regulations. These states would receive 50 percent of their basic formula beginning in fiscal year 1995. The formula funds withheld from these incompatible states will be made available to those states with comprehensive programs to conduct certain high priority projects that are innovative, successful, cost-efficient and cost-effective.

Mr. CARR. What consideration has the Office of Motor Carriers given to revising the MCSAP distribution formula so that all or a portion of MCSAP funds are awarded to states based on performance?

[The information follows:]

The revised MCSAP formula published on February 3, 1994 provides additional funds to high performing States.

We consider a high performing state as one that has and enforces compatible regulations and conducts a wide range of safety activities including roadside inspections; compliance reviews; traffic enforcement; hazardous materials training; drug and alcohol enforcement; a fully-implemented SAFETYNET program, and as otherwise defined by the FHWA.

Mr. CARR. FHWA has announced an interim final rule to modify the MCSAP distribution formula to limit the participation of states that do not have compatible *interstate* regulations. Please describe how the proposed modification would work and indicate which states would be affected by the new rule.

[The information follows:]

The interim final rule does not change the eligibility for funding for states with incompatible *interstate* regulations. States which have incompatible interstate regulations on October 1, 1994, will be ineligible for continued MCSAP funding. The interim final rule does allow states with incompatible *intrastate* regulations on October 1, 1994, to participate in MCSAP at one-half their basic formula amount. The withheld funds will be available to states with comprehensive programs. They will also be available to the states with incompatible intrastate regulations, but they will only be permitted to use them in activities which will assist them in achieving intrastate compatibility.

Had this interim rule not been published, states with incompatible intrastate regulations would not have been eligible for any MCSAP funding after September 1994. Reduced funding permits these states to continue their MCSAP activities albeit at a reduced level. This will provide continued support for the national program while encouraging these states to achieve the required level of compatibility. FHWA believes that the 50 percent reduction in funding will allow the states to continue to conduct their basic MCSAP, but is severe enough to act as incentive for achieving compatibility.

States with incompatible interstate regulations are: Alaska, Arizona, California, Maryland, Minnesota, Mississippi, Nebraska, Pennsylvania, Washington and Wisconsin. Those with incompatible intrastate regulations are: Alaska, Arizona, California, Iowa, Kentucky, Maine, Maryland, Minnesota, Mississippi, Nebraska, Pennsylvania, Washington and Wisconsin. Letters have been sent to the Governor of each of the involved states stating the existing incompatibility and enlisting the Governor's assistance and support in achieving the necessary compatibility.

STATES NOT PARTICIPATING IN MCSAP PROGRAM

Mr. CARR. Please discuss why Florida and South Dakota currently do not participate in the MCSAP program.

[The information follows:]

Although Florida and South Dakota do not participate in MCSAP, they do have commercial motor vehicle safety programs. We have held meetings with officials from both states to discuss opportunities for training and data sharing. Both states are also participating in national programs, such as Challenge '94. At this time, South Dakota does not plan to participate in MCSAP because of the attendant federal requirements.

The State of Florida has not participated in MCSAP since fiscal year 1989, when the state enacted incompatible intrastate regulations.

In fiscal year 1993, Florida received a special grant for $197,148, enabling the state to begin uploading roadside inspection data to the Federal SAFETYNET system in anticipation of joining the MCSAP in fiscal year 1994. The state submitted a State Enforcement Plan for fiscal year 1994 requesting $2.5 million in basic formula funds, with participation contingent upon the state's adopting compatible intrastate legislation. If the state does not adopt compatible intrastate requirements, it will still be eligible to receive 50 percent of its Basic grant funding in fiscal year 1994.

UNSATISFACTORY SAFETY RATINGS OF HAZARDOUS MATERIALS CARRIERS

Mr. CARR. How many hazardous materials carriers have unsatisfactory safety ratings and what is the Office of Motor Carriers doing to reduce this number?

[The information follows:]

At the end of fiscal year 1993, there were 595 hazardous materials carriers with an unsatisfactory safety rating. Not all these carriers transport placarded quantities of hazardous materials. These carriers are placed on a priority list for follow-up reviews. When a hazardous materials carrier receives an unsatisfactory rating, it has 45 days to improve the rating in order to continue transporting hazardous materials which require placarding. The safe transportation of hazardous materials is a high priority, and we will assist the industry through education and technical assistance, public outreach programs, and providing sound technical recommendations to improve compliance.

HAZARDOUS MATERIALS REGULATION

Mr. CARR. ISTEA provides that $1.5 million of MCSAP funds be allocated for training for state MCSAP inspectors to enforce hazardous materials regulations. What has been accomplished since this funding set aside was enacted?

[The information follows:]

The current training strategy for HM and our other programs is to develop and coordinate standard courses for both state and federal safety staff to promote a uniformed and consistent national compliance and enforcement program. In fiscal year 1993, $1 million was allocated to the States (by formula) for hazardous materials (HM) training. In addition, $0.5 million was allocated for HM training development through a grant to Missouri. In fiscal year 1994, the States are receiving $1.25 million for HM training and, an additional $0.25 million is being used for further training development under a grant to Missouri.

The increase in HM training has shown direct results with increases in the number of MCSAP HM inspections. In fiscal year 1992, 143,000 roadside HM inspections were conducted and in fiscal year 1993, 155,000 were conducted. Similar increases are anticipated in fiscal year 1994 and beyond.

HAZMAT COMPLIANCE REVIEWS

Mr. CARR Please provide data for each of the last three years concerning the number of reviews of HAZMAT shippers, number of enforcement cases against HAZMAT shippers for alleged violations of HAZMAT regulations; amount of civil penalties associated with these violations; and the amount of civil penalties collected.

[The information follows:]

The following figures are the number of compliance reviews (CRs) conducted on hazardous materials (HM) shippers for each year. The first column reflects CRs that were either performed on HM shippers who do not operate their own vehicles to transport the materials or were performed only on the shipper portion of a shipper/carrier operation. The second column represents CRs that included reviews of both the HM shipper and carrier compliance by a shipper who also provides transportation of the HM.

HM Shipper operations

Fiscal year:	
1992	389
1992	388
1993	421

HM Carrier/Shipper operations

Fiscal year:	
1991	1,138
1992	1,245
1993	1,316

The table below lists the number of enforcement cases on shipper only operations (first column above) which had cites for HM violations. Also included are the amounts assessed and settled for the HM counts.

	No. cases	Amount assessed (claimed)	Amount settled
Fiscal year:			
1991	24	$113,400	$100,460
1992	16	83,500	37,275
1993	45	268,200	188,760

The table below lists the number of enforcement cases on carrier/shipper operations which had cites for HM violations. Also included are the amounts assessed and settled for the HM counts. Please note that these numbers include all HM cites, including carrier violations, as it is impossible to separate shipper and carrier cites.

	No. cases	Amount assessed (claimed)	Amount settled
Fiscal year:			
1991	91	$376,250	$299,599
1992	119	576,701	461,784
1993	190	883,635	727,129

TRAFFIC ENFORCEMENT

Mr. CARR The Office of Motor Carriers is requesting $6.375 million for commercial motor vehicle traffic enforcement. How do you determine the effectiveness of MCSAP funding for traffic enforcement?

[The information follows:]

Traffic enforcement is an important part of the comprehensive MCSAP because it targets problem drivers. It also provides for commercial vehicle enforcement in unannounced locations, and may involve non—MCSAP agencies. In addition, we encourage the MCSAP lead agencies to involve more local agencies in traffic enforcement activities.

We are able to use our data to monitor and evaluate the effectiveness of traffic enforcement activities. We know, for example, that traffic stops made for speeding, following too closely, improper lane change, reckless driving and other serious violations result in an average of about 12 percent of the drivers being placed out-of-service. This is nearly twice the average driver out-of-service rate of 6.6 percent resulting from all inspections and nearly 3 times the driver out-of-service rate of 4.8 percent resulting from level I inspections. We are also able to associate certain other driver out-of-service violations with the traffic stops. For example, drivers stopped for speeding tend to have a high rate of log falsification. Thus, commercial motor vehicle traffic enforcement is consistent with ISTEA and with our efforts to increase the focus on problem drivers.

Mr. CARR. The fiscal year 1995 request for MCSAP would double the amount available for traffic enforcement. What is the justification for the proposed increase?

[The information follows:]

We believe that additional emphasis should be placed on human-factor related safety concerns. This emphasis is consistent with the provision in ISTEA. Preliminary data from 1993 also reveals that drivers receiving traffic infractions have other driver safety violations—hours-of-service violations—at rates higher than all MCSAP-related driver violations.

Increased traffic enforcement funding will allow the states to broaden their enforcement and inspection efforts, to assist in targeting problem drivers, and to support roadside alcohol and drug activities. We are also working with the states to evaluate the effectiveness of the traffic enforcement citations as an indicator of a motor carrier's safety management practices.

LEVEL II INSPECTIONS

Mr. CARR. How many states are conducting level II inspections in conjunction with stops for moving violations?

[The information follows:]

Forth-six States (in addition to the District of Columbia, Puerto Rico, Guam, and American Samoa) conducted traffic enforcement under MSCAP.

Mr. CARR. Are these inspections resulting in more driver out-of-service violations, given their surprise nature compared with those conducted at weigh stations?

[The information follows:]

Traffic stops during levels II and III inspections were made for speeding, following too closely, improper lane change, reckless driving and other serious moving violations and resulted in about 12 percent of the drivers being placed out-of-service. This is nearly twice the fiscal year 1993 average driver out-of-service rate of 6.6 percent resulting from all inspections and nearly three times the driver out-of-service rate of 4.8 percent resulting from level I inspections.

We are evaluating this data to determine if the higher out-of-service rates result from the location of the enforcement, the training of traffic enforcement officers, or other factors.

TRAFFIC CITATIONS

Mr. CARR. Please provide state-by-state data on the number of traffic citations issued to commercial truck drivers for moving violations, and the number of inspections resulting from traffic enforcement.

[The information follows:]

Traffic citation data are not collected in SAFETYNET. In fiscal year 1993, the states reported over 151,000 inspections resulting from traffic stops.

We have also initiated a pilot study with several states to identify the motor carrier on traffic citations issued to commercial motor vehicle drivers for traffic violations. The states participating in this pilot already collect the U.S. DOT number of their traffic tickets. In this pilot, the States will evaluate if traffic citation data is a good indicator that the employing motor carrier have serious safety management problems and should be subject to a compliance review. The results of this pilot will also be evaluated as part of the Commercial Vehicle Information System.

INTERNATIONAL REGISTRATION PLAN AND THE INTERNATIONAL FUEL TAX AGREEMENT

Mr. CARR. ISTEA mandates that after September 30, 1996, states may only collect motor carrier fuel tax and registration fees through base state agreements such as the International Registration Plan (IRP) and the International Fuel Tax Agreement (IFTA). Your 1995 request includes $6.0 million related to these activities. How much has been allocated to this effort to date and what progress has been made regarding state participation in the IRP and IFTA?

[The information follows:]

Congress authorized $6 million per year for 6 years (fiscal years 1992–1997). Of this amount, $5 million was in the form of grants to states and $1 million was to provide staff support to a working group comprised of State officials to assist States in their efforts to comply with the mandate.

States have been allocated a total of $12 million to date ($6 million in fiscal year 1992, $3 million in fiscal year 1993, and $3 million in fiscal year 1994). For IRP, 45 of the 49 affected jurisdictions are members (non-member States include New Jersey, Rhode Island, Delaware, and D.C.) For IFTA, 27 of the 46 jurisdictions (excluding the 3 Regional Fuel Tax Agreement States of Maine, Vermont, and New Hampshire) are members of IFTA.

Mr. CARR. What would be accomplished with the $6.0 million requested for fiscal year 1995?

[The information follows:]

The FHWA will allocate $5.5 million in fiscal year 1995 to states, with new member states receiving a double share, to accomplish a number of critical activities so that they will meet the congressional requirement to join the International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) by September 1996. Currently, three states are not members of IRP and 19 states are not members of IFTA. The funds will be used by states and the respective IRP and IFTA repositories to support accelerated training, technical assistance and data processing to handle the surge of new members between now and the 1996 deadline. The remaining $500,000 would be used by the base state working group to develop procedures for dispute resolution among the states, providing assistance to new States, and carefully monitoring progress.

WEIGHT ENFORCEMENT ACTIVITIES

Mr. CARR. In 1991, the Inspector General recommended that the FHWA work more closely with the states to improve weight enforcement activities. Please provide an update on the status of the FHWA's implementation of the eight recommendations made in the Inspector General's 1991 report.

[The information follows:]

The OIG's final report originally did include eight recommendations. However, after additional consultation with the FHWA the eighth item was removed from the report. The status of implementation of the remaining seven recommendations included in report No. RO–FH–2–003 (DOT—Inspector General, November 21, 1991) is as follows:

Recommendation 1: Develop weigh-in-motion (WIM) calibration standards. Completed December 1993.

Recommendation 2: Promote increased use of WIM. Completed March 1992 by providing guidance to field to work with States to implement WIM.

Recommendation 3: Improve analysis of state weight enforcement plans. Completed May 1993 by providing guidance and disk for automation.

Recommendation 4: Obtain statutory authority to prohibit certain types of permits. FHWA responded in November 1991 that we did not have that authority and were not requesting it.

Recommendation 5: Evaluate existing state fine structures. Completed December 1993 by requesting comments in the ANPRM on a series of questions on the subject.

Recommendation 6: Promote state adoption of relevant evidence. Responded October 1993 by funding four States to implement and evaluate that procedure.

Recommendation 7: Eliminate scale tolerances. Completed November 1991 by writing the six states identified in the report that used tolerance and reviewing their enforcement plans and laws for compliance. Further, requested responses to this subject in ANPRM.

Mr. CARR. How many states are using MCSAP funds for weight enforcement activities?

[The information follows:]

Twenty-five states conducted size and weight enforcement activities in FY 1993. The states are required to conduct an appropriate level of inspection in conjunct ion with a size and weight activity.

EFFICIENCY OF ROADSIDE INSPECTIONS

Mr. CARR. What new technologies are being developed to help inspectors conduct more efficient inspections and to monitor vehicle weights and maintenance quality?

[The information follows:]

The FHWA's effect to improve the efficiency of roadside inspection activities is being accomplished by: (1) developing systems to provide carrier, driver and vehicle safety information to the inspection site to assist inspectors in determining which vehicles and items to check, and (2) developing technologies to reduce the time needed to conduct an inspection. Further, the FHWA is developing technologies and information systems to "electronically clear" a vehicle by assessing a vehicle's safety, weight and credentials at highway speeds which will minimize the need for roadside inspections.

During fiscal year 1994, we have several initiatives underway directed at improving the efficiency of roadside inspection activities. The Office of Motor Carriers is currently working with the National Highway Traffic Safety Administration (NHTSA), several States, and Battelle Corporation, on a project entitled "Development, Evaluation, and Application of Brake Testing Devices" to evaluate and test devices that show substantial promise of increasing the efficiency of roadside inspections by reducing the time needed to check a vehicle's brake system. Brake testing devices that will be tested and evaluated include roller dynamometers, skid-pad, infra-red, and "torque" type brake testing devices. The FHWA believes that the use of innovative brake testing technologies such as these and others could reduce the time to check a vehicle's brake system from 20–30 minutes to as little as 5–10 minutes.

In order to more efficiently monitor weight, the FHWA is assessing the reliability and accuracy of high speed weigh-in-motion equipment that can be used to monitor weight 24 hours a day. This equipment could also be used to screen vehicles for enforcement. Further, we expect to fund an operational test of technologies for mobile weighing. Finally, the FHWA will start a project in 1994 that will recommend designs and technologies for weigh stations to improve efficiency.

The FHWA is also assessing the feasibility of standardized electronic devices that could be used by motor carriers in their maintenance operations, by roadside inspectors to identify safety and emissions problems, and by drivers for pre-trip inspection.

OVERWEIGHT VEHICLES—PENALTIES AND PERMITS

Mr. CARR. What were the results of FHWA's latest "Overweight Vehicles—Penalties and Permits" report with respect to trucks weighed, divisible load multiple-trip permits issued, and citations issued for the last three years?

[The information follows:]

The year ending September 30, 1992 is the most recent time period for which complete data are available. National totals for that year and the two preceding years are as follows:

Fiscal year	Trucks weighted	Divisible-load multiple-trip permits	Citations
1990	149,186,594	140,697	667,954
1991	150,427,618	160,914	663,204
1992	160,535,591	136,288	677,976

CITATION RATE OF TRUCK WEIGHT ENFORCEMENT

Mr. CARR. What is being done to increase the citation rate, especially in states with a low rate?

[The information follows:]

The FHWA has never considered the citation rate, per se, as an accurate measure of truck weight enforcement effectiveness. The use of citation rate must be combined with information on the scale types used to obtain a true picture of weight enforcement effort. In recent years, citation rates alone have become even less meaningful due to the increased use of weigh-in-motion (WIM) as a screening tool. WIM allows many more legal trucks to be automatically included in the weighed data base. An enforcement action, however, continues to require a more time-consuming static weight of a vehicle, and manual issuance of the citation or warning. This results in a lower number of citations issued per number of trucks weighed.

Our field offices are continuing to work with State weight enforcement agencies to strengthen and improve the efficiency and effectiveness of weight enforcement efforts through the annual enforcement plan review and approval process. Today the basic strategy in weight enforcement is to staticly weigh a truck. We are researching additional tools that might ultimately be used in the enforcement effort, including: issuing citations directly off of low-speed WIM, the use of relevant evidence to cite shippers instead of carriers, and technologies like high-speed WIM in the IVHS/CVO program to assist in weight limit compliance monitoring.

WEIGHT ENFORCEMENT

Mr. CARR. The Office of Motor Carriers recently issued an advanced notice of proposed rulemaking to revise vehicle size and weight monitoring regulations. How will the process be changed and what criteria will be used to evaluate state effectiveness at enforcing weights?

[The information follows:]

On December 16, 1993, the FHWA published an advance notice of proposed rulemaking (ANPRM) at 58 FR 65830. The purpose was to seek public comment on ways in which the annual enforcement certification process might be improved. The notice included nine topic areas of size and weight enforcement which are often cited as causing problems since the current enforcement certification rules were issued in August 1980. At this time, the docket is open and is being extended to May 15, 1994. We will analyze the comments to decide a course of action.

Mr. CARR. What is the Office of Motor Carriers doing to add weight enforcement violations to the data available on carrier performance through SAFETYNET or other data systems?

[The information follows:]

We will be awarding a contract by the end of this fiscal year to develop the next major series of enhancements to the SAFETYNET software. Part of this contract will be a study of adding a weight enforcement violation module to SAFETYNET.

In addition, we are reviewing a study conducted by the State of Oregon which analyzed weight enforcement violations as it relates to a carrier's safety performance. The study concluded that carriers who had weight enforcement violations also had a high number of safety violations. We will be using the results of the study in determining whether such a SAFETYNET function is required.

Mr. CARR. How have states used additional grant funds available under MCSAP for weight enforcement.

[The information follows:]

Limited size and weight enforcement activities are eligible for MCSAP funding under ISTEA. These activities are limited so as to not take away from safety activities of MCSAP. However, when both size and weight and MCSAP activities are conducted by the same agency, this funding flexibility is cost effective and beneficial to both programs.

MCSAP funded size and weight activities are conducted at non-fixed sites with portable scales. Further, for these activities to be eligible for MCSAP funding, the states are required to conduct an appropriate level of vehicle and/or driver safety inspection in conjunction with the size and weight activity.

The states do not receive additional funds for size and weight activities. Those states that conduct size and weight activities use funding received in their Basic grant.

DRUG INTERDICTION ASSISTANCE PROGRAM

Mr. CARR. Please provide the number of arrests, seizures, and other activities under the drug interdiction assistance program for each of the past three years.

[The information follows:]

FY 1991: The Drug Interdiction Assistance Program (DIAP) team trained 1,864 officers in 36 sessions, and reported 27 major seizures from drug laden commercial motor vehicles (CMVs).

FY 1992: The DIAP team trained 3,302 officers in 57 sessions, and reported 70 major seizures from drug laden CMVs.

FY 1993: The DIAP team trained 3,318 officers in 56 sessions, and reported 102 major seizures from drug laden CMVs.

FY 1994: The DIAP team has trained 1,523 officers in 34 sessions, and reported 42 major seizures from drug laden CMVs, as of March 15, 1994.

Under the present criteria for documenting major drug seizures from CMVs, DIAP only documents drug/currency seizures that exceed certain weights/amounts. Hundreds of seizures and arrests are not recorded. Additionally, arrests are not documented with the exception of the operator of the drug laden CMV.

As of March 15, 1994, 253 drug seizures from CMVs have been documented, totaling over 200,000 pounds of marijuana, over 50,000 pounds of cocaine; $4.2 million in currency seizures and $12.1 million in property seizures. DIAP instructor team has provided training to over 13,000 Federal, State and local officials.

Other activities include the initiation of training for U.S. Customs/U.S. Border Patrol agents along both Canadian and Mexican borders. In fiscal year 1994 training is on-going with 21 sessions completed in 10 locations. Over 1,000 Federal officers have been trained as part of this effort.

This initiative was in response to the anticipated increase of CMV traffic due to NAFTA.

Mr. CARR. Please provide a state-by-state breakdown of the drug interdiction assistance program funds for fiscal years 1993 and 1994.

[The information follows:]

All states are encouraged to participate in DIAP activities and to integrate this activity into their basic grant. A number of states conducted DIAP activities under their basic grants in fiscal year 1993. These states are listed below. While the states reported data on DIAP activities, they were not required to specify funds spent on those activities since they were conducted as part of regular MCSAP inspections.

Connecticut, Massachusetts, New Hampshire, Rhode Island, Vermont, Delaware, Virginia, West Virginia, Alabama, Georgia, Mississippi, North Carolina, Tennessee, Illinois, Ohio, New Mexico, Oklahoma, Iowa, Nebraska, Colorado, North Dakota, Wyoming, Arizona, and Idaho

Further, grants in addition to the states' basic grants are available to states for special commercial vehicle drug interdiction activities. In fiscal year 1993 funds were allocated to five states for those activities. Additional funds have not been allocated to date in fiscal year 1994, but we are reviewing a number of requests and anticipate awarding funds for some of these activities shortly. The five states receiving these funds in fiscal year include:

State	*Amount*
New Jersey	$500,000
Arizona	70,000
Kentucky	50,000
Missouri	54,732
Nevada	47,580

SAFETYNET

Mr. CARR. What progress has been made in improving SAFETYNET, such as adding carrier information to traffic citations and providing electronic access to the commercial driver licensing information system?

[The information follows:]

SAFETYNET is continuously being improved. The status of the two examples cited in this question follow:

Development of electronic access from roadside MCSAP sites to commercial driver license status information is currently being studied and a requirements analysis is proceeding. We expect a functioning pilot sometime this summer, and progress toward finalization and distribution of a product to roadside sites around the country will proceed promptly, with at least 100 sites operational in 1996.

The effectiveness of adding carrier information to traffic citations and transferring that information to the Motor Carrier Management Information System (MCMIS) is also under study. We expect a recommendation on what direction to take by later this summer.

These two items would provide the Office of Motor Carriers with more information to support our vision of improving the safety operations of motor carriers by enabling us to have better data to identify problem carriers, prioritizing resources to conduct on-site reviews, and providing enforcement officials with better data on drivers.

Mr. CARR. How many states have uploaded all of the required 1993 inspection data to SAFETYNET and when will all States have their 1993 data on line?

[The information follows:]

All but 5 MCSAP states (total of 43) and the District of Columbia have uploaded all their 1993 inspection data. We expect the remaining 5 states to have uploaded all their 1993 data by August 1994.

Mr. CARR. Which states have delays in uploading their inspection data to SAFETYNET and what is being done to improve the situation in those states?

[The information follows:]

The following states have delays in uploading their inspection data through SAFETYNET: California, New Jersey, New York, Tennessee, and Texas.

New York, Tennessee, and Texas are converting their data to the latest SAFETYNET FORMAT. We are monitoring their progress and have provided technical assistance. In addition, Tennessee is experiencing data entry delays and don't expect all of their 1993 data to be entered until August 1994.

We conducted a review of SAFETYNET operations in New Jersey to determine the reasons for delays in uploading their inspection data. During the on-site review, recommendations were made to state officials. Correspondence has been sent to the state outlining the actions they must take to upload their inspection data in a timely manner to comply with their grant.

California is currently experiencing technical problems with SAFETYNET which has prevented them from uploading all of the 1993 data. The Regional Office as well as the SAFETYNET Technical support staff are working closely with the state to solve these problems.

Throughout the year, we produce reports which are used to monitor each state's progress in uploading their inspection data. These reports are sent to the field staff and any timeliness problems are discussed with the State.

NATIONAL GOVERNORS' ASSOCIATION ACCIDENT DATA ELEMENT

Mr. CARR. How many states have now modified their accident reporting forms and reporting criteria to include all of the National Governors' Association (NGA) accident data elements?

[The information follows:]

In September 1993, we found that 28 states had modified their reporting forms to include the NGA accident data elements.

Mr. CARR. When will all states have this process completed?

[The information follows:]

We expect that by the end of 1995 almost all states will have modified their reporting forms and reporting criteria.

Mr. CARR. How many states now consistently upload all 22 of the NGA accident elements to SAFETYNET's accident module, as opposed to only those entered under phase I?

[The information follows:]

Ninteen states now consistently upload all 22 of the NGA accident data elements. Fifteen other states upload some of the NGA data elements.

The FHWA is actively promoting state adoption of the NGA accident data elements. The major part of our implementation effort is the production and distribution of training materials for state and local law enforcement agencies. These materials include: a the train-the-trainer course; a compact disc interactive (CD–I) training course; a video tape, and a four part video tape series produced by the Law Enforcement Television Network (LETN) and broadcast in June 1993.

The FHWA has also organized a joint federal-state task force to develop and implement strategies to assist states to adopt the NGA data elements. In addition we have distributed grant funds to all States requesting funds to help them adopt the data elements.

Mr. CARR. How many states are consistently entering only the 5-element phase one data?

[The information follows:]

Of the 34 states uploading accident data through SAFETYNET, 8 are consistently entering and uploading only the 5-element phase one data. The remaining 26 states are either uploading all or a majority of the 22 NGA data elements.

Mr. CARR. Are all NGA reportable accidents investigated by state police now being reported to SAFETYNET as was required by January 1, 1994?

[The information follows:]

Since it may take a state several months to accumulate accident reports in a central location, enter the accidents onto a state computer, sort out those that must be reported through SAFETYNET, and then send data on the accidents to us, we are giving states a 180 day grace period to report the accidents to us. Thus, data on an accident that occurs on January 1, 1994 will not be due to OMC until July 1, 1994.

While we do not expect this 6 month delay to be permanent, some delay in truck and bus accidents being received by OMC will remain. Typical delays which presently exist in the system between the investigating officer and OMC's SAFETYNET data base in Washington, DC are: Delivery of the report to the officer's superior, verification and check of the report by the superior, mailing the report to the home of the state data base, entry of the accident into the state's computer data base, extraction of the report from the state's computer data base and entry into the state's SAFETYNET file, and electronic transfer from the state's SAFETYNET file to OMC's SAFETYNET file.

The FHWA is working to reduce delays in processing data entry through training and technical support for laptop and other technologies to enter data on real time.

Mr. CARR. Which states are not reporting all of these accidents and why?

[The information follows:]

States have a grace period until July to report the data, and we expect all states to provide data by the deadline.

Mr. CARR. What has the FHWA done to encourage states to improve their NGA accident reporting?

[The information follows:]

The OMC is actively promoting state adoption of the NGA accident data elements. The major part of our implementation effort is the production and distribution of training materials for State and local law enforcement agencies. These materials include: A half day course in the NGA elements that includes an instructors manual, an officers manual, a set of 17 overheads, and a set of 217 slides; a the train-the-trainer course that OMC taught in four cities in 1993; a compact disc interactive (CD–I) training course for individual officers which will be available this summer; a video tape produced by the Idaho State Police; and a four part video tape series produced by the Law Enforcement Television Network (LETN) and broadcast in June 1993. Copies of the series are available from LETN.

In addition the OMC has organized a joint federal-state task force to develop and implement strategies to assist States to adopt the NGA data elements.

Mr. CARR. How many states are now reporting intrastate accidents? How long will it take for all states to do so?

[The information follows:]

All 34 states currently uploading accident data through SAFETYNET are uploading intrastate accidents. We expect all states to be uploading intrastate accidents by 1996.

Mr. CARR. What assurances do you have that all accidents that meet the NGA criteria are actually being reported to SAFETYNET?

[The information follows:]

We compared our new accident reporting system which uses accident reports completed by state and local police (NGA/SAFETYNET data) with our old accident reporting system which relied on carrier self-reported accident data (MCS 50T/50B). The preliminary results look promising.

In order to have a good quantity of data to compare, we selected three states which adopted the NGA elements well in advance of the ISTEA deadline and used data collected in 1992 for both 50–T data and NGA/SAFETYNET data. 1992 was selected as a comparison year because this is the only year in which the two will overlap.

In Pennsylvania the number of reported accidents increased from 1,972 to 6,993, a jump of 254 percent. In Colorado the number of accidents rose from 448 to 2,087, a leap of 365 percent. In Wyoming accident reports climbed from 300 to 706, an increase of 135 percent.

We cannot be certain that the new reporting system using the NGA data elements will result in all accidents being reported, but the sharp increases reflected above indicate that we are building a better database.

In 1995 we will begin a number of activities to determine if all relevant accidents are being reported. They include: continuous monitoring of the records that states are submitting comparing results to other existing accident data systems, especially the ones operated by NHTSA and accident systems within the states; in-depth analysis in selected states, particularly if we suspect underreporting; and special studies.

TRUCK AND ACCIDENT GRANTS

Mr. CARR. What is the justification for the proposed doubling of truck and accident grants to $2 million in fiscal year 1995?

[The information follows:]

Full funding of the program at $2 million in fiscal year 1995 and subsequent years should enable all states to address the legislative, institutional, and operational changes needed to adopt, report, and upload the National Governor's Association accident elements. While many states have taken steps towards meeting this deadline, 21 still have substantial work in terms of training and computer systems to do to meet the requirement.

Mr. CARR. What results do you expect to achieve with the additional funding?

[The information follows:]

We expect to use the additional funding for:

Training.—The training needed for all state and local police officers in the collection of a new set of accident data elements is a massive task. Revisions must be made to the accident collection course given to new officers in State and local police academies, and in-service courses must be developed and offered for officers already in the field. Course materials, manuals, and test must be produced; and

Computer Systems.—State computer systems have to be modified to accept new data elements. In many states special programs have to be written to extract the truck and bus reportable accidents from the main state computer so the data can be uploaded via SAFETYNET.

CDL ENFORCEMENT

Mr. CARR. How much MCSAP funding is now used for CDL enforcement, counting both basic and supplemental grants?

[The information follows:]

All MCSAP enforcement activities include CDL enforcement elements. The full $1 million earmarked in ISTEA for CDL enforcement is allocated to all states as part of their basic MCSAP grant allocation. In addition, $4.25 million in supplemental grants were distributed for traffic enforcement which includes CDL checks.

Mr. CARR. How many states electronically input disqualifying convictions and how many have long lag times between conviction and entry into CDLIS?

[The information follows:]

In the fourth quarter of 1993, 44 states were transmitting out of state convictions electronically to a CDL holder's home state. Only six states: Kansas, Minnesota, North Carolina, North Dakota, Rhode Island, Utah and the District of Columbia did not send any convictions electronically. While we are not currently tracking "lag times" of specific states between convictions and electronic entry into CDLIS, our experience indicates that the major portion of the problem lies with the transfer of conviction data from the judicial system to the state licensing agency. Once the conviction data is entered into the CDLIS, the transfer to the driver's home state is instantaneous.

Mr. CARR. What is being done to encourage the slower states to adopt electronic transfer of conviction information?

[The information follows:]

While the final rule on state compliance with the Commercial Driver's License Program, which is currently under review, does not mandate electronic transfer of conviction data, it stresses the importance of timely transfer of conviction data to the driver's home state. We are also working with the states through AAMVA to explore options for providing timely data transfer. We will initiate a separate rulemaking on this important issue once this work is completed.

Mr. CARR. Are National Driver Register suspensions/revocations input into CDLIS in a timely manner: What assurance is there that all such violations are entered into this system?

[The information follows:]

The NDR and CDLIS are separate systems. Data entered into the NDR on suspensions and revocations of driving privileges is governed by regulations issued by the NHTSA. Under those regulations, the accuracy of the drivers' current status will improve as all states implement the Problem Driver Pointer System.

The FHWA is working to assure that commercial driver suspensions, revocations, and disqualifications are accurate through determination of State compliance with CMVSA of 1986. Several components of this determination will help improve the data and help remove problem drivers from commercial motor vehicles. These include: the requirement that states check the NDR file before issuing or renewing a CDL and deny the CDL if the applicant is currently under revocation, and the requirement that states report out-of-state convictions to the licensing state.

In addition, the Office of Motor Carriers is in the preliminary stages of a joint effort with NHTSA to study the effectiveness of the national information systems that support driver licensing; the CDLIS, the NDR, and the Driver Licensing Reciprocity program. The results of this study will help improve the data.

DISTRIBUTION OF MCSAP RESOURCES

Mr. CARR. Please provide a table that shows the MCSAP base program amount and each of the ISTEA program elements for fiscal years 1993, 1994 and 1995.

[The information follows:]

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—MOTOR CARRIER SAFETY ASSISTANCE PROGRAM—DISTRIBUTION OF RESOURCES

[Dollars in thousands]

	1993	1994	1995
Maintenance of the Basic Program	$50,438	$51,088	$60,962
ISTEA Program Elements:.			
Traffice Enforcement	4,250	4,250	6,375
CDL Enforcement	1,000	1,000	1,000

DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION—MOTOR CARRIER SAFETY ASSISTANCE PROGRAM—DISTRIBUTION OF RESOURCES—Continued

[Dollars in thousands]

	1993	1994	1995
Hazardous Materials Training	1,500	1,500	1,500
Truck & Bus Accident Grants	1,000	1,000	2,000
Research and Development	500	500	775
Public Education	350	350	850
Uniformity Issues:			
Uniformity Grants	2,500	3,000	5,000
Uniformity Working Group	500	....	1,000
Commercial Vehicle Information System (not to exceed)	1,500	1,500	2,000
Administrative Takedown	812	812	1,038
Drug Interdiction Assistance Program	650	....	500
Total	65,000	65,000	83,000

MCSAP DISCRETIONARY FUNDS BY STATE

Mr. CARR. Please provide a state-by-state breakdown of the discretionary funds provided to MCSAP states in fiscal year 1993, including the use of the funds.

[The information follows:]

A chart which shows how reallocated funds were distributed along with the use of the funds follows:

FISCAL YEAR 1993 REALLOCATIONS

State	Amount	Activity
Arizona	$94,450	High Risk Driver Project; DIAP activities.
California	121,320	Intergovernmental staff development; Data Evaluation.
Delaware	25,000	Additional Traffic Enforcement.
Florida	197,148	SAFETYNET implementation.
Idaho	80,100	Video project.
Indiana	65,000	Intergovernmental staff development.
Kansas	174,048	Additional Traffic Enforcement.
Kentucky	100,000	Data input services; DIAP activities.
Massachusetts	100,000	Rush Hour Enforcement project.
Michigan	228,558	Truck Show and new display; 1-year detail to CVSA.
Minnesota	95,775	Additional Traffic Enforcement.
Missouri	102,611	Additional Traffic Enforcement; DIAP activities.
Nebraska	50,000	Premier Carrier Project.
Nevada	47,580	DIAP activities.
New York	50,000	Industry Education—Cargo Securement.
North Dakota	73,000	Evaluation of Enforcement Strategies.
Ohio	90,400	Additional Traffic Enforcement; SAFETYNET upgrades.
Pennsylvania	45,000	Covert activities, bus, ramps, and additional HM Training.
Texas	142,824	Laptop computers for CRs.
Utah	112,361	Local Enforcement activities.
Vermont	29,600	Training, SAFETYNET upgrades, and laptop computers.
Virginia	21,120	Mainframe reprogramming.
Washington	122,874	Additional Traffic Enforcement.
District of Columbia	60,000	Additional motor carrier safety enforcement.
Guam	5,000	Bus inspection ramps.

EXPENDITURES FOR THE MCSAP PROGRAM

Mr. CARR. Please provide a table that shows state-by-state expenditures for the MCSAP program, excluding the federal grants for fiscal years 1990 through 1993.

[The information follows:]

In MCSAP, the states must continue to fund their own commercial motor vehicle programs and not use MCSAP funds to replace states funds. The FHWA no longer requires the states to report this information annually as part of their grant application. Under 49 CFR part 350, the states certify in their State Enforcement Plan (SEP) that they meet these requirements. Periodically, process reviews and audits are conducted by FHWA as part of its grants management functions to insure that the states are meeting these requirements.

ALLOCATION OF MCSAP FUNDS BY STATE

Mr. CARR. Please provide information on how the MCSAP funds are allocated by state and include a table that shows the state allocations for fiscal year 1994.

[The information follows:]

The MCSAP basic and supplemental grants (traffic enforcement and hazardous materials training) are distributed according to an allocation formula based on the most recent data concerning the following factors in equal proportion: (1) road mileage; (2) vehicle miles travelled; (3) number of commercial vehicles over 10,000 pounds (gross vehicle weight rating); (4) population; and (5) special fuel consumption.

Attached is a table which shows the allocation for each state in fiscal year 1994.

Funds from those states that did not request traffic enforcement funds or hazardous materials training were distributed to the other states through the formula.

FISCAL YEAR 1994 MCSAP ALLOCATIONS

STATE	FY 1994 BASIC ALLOCATION BASED ON $50,565,417	FY 1994 TRAFFIC ENF. BASED ON $4,250,000	FY 1994 H/M TRAINING BASED ON $1,250,000
Alabama	$1,067,671	$90,320	$6,000
Alaska	$225,000	$18,590	$5,468
American Samoa	$225,000	$23,590	$6,250
Arizona	$699,029	$65,136	$21,031
Arkansas	$651,206	$0	$16,203
California	$2,500,000	$265,074	$100,000
Colorado	$740,320	$76,923	$18,420
Connecticut	$437,534	$36,439	$10,717
Delaware	$225,000	$18,590	$4,765
Dist. of Columbia	$225,000	$20,000	$6,250
Florida	$2,500,000	$206,550	$60,750
Georgia	$1,628,411	$137,251	$40,517
Guam	$225,000	$25,000	$6,250
Hawaii	$225,000	$0	$5,468
Idaho	$412,737	$42,886	$10,269

Illinois	$2,279,744	$192,859	$56,723
Indiana	$1,456,537	$123,218	$36,241
Iowa	$982,445	$102,081	$24,444
Kansas	$942,889	$97,971	$25,104
Kentucky	$919,069	$77,750	$22,868
Louisiana	$837,416	$70,843	$20,836
Maine	$283,777	$24,007	$7,061
Maryland	$765,826	$79,573	$23,041
Massachusetts	$790,983	$82,187	$19,681
Michigan	$1,792,926	$151,676	$44,610
Minnesota	$1,236,335	$128,462	$30,762
Mississippi	$655,784	$55,477	$16,317
Missouri	$1,368,082	$142,150	$25,475
Montana	$404,226	$34,196	$10,058
Nebraska	$695,530	$72,269	$20,926
Nevada	$358,217	$37,221	$10,777
New Hampshire	$225,000	$18,590	$5,468
New Jersey	$1,047,605	$84,653	$24,898
New Mexico	$471,698	$39,904	$11,736
New York	$2,248,975	$233,681	$55,958
North Carolina	$1,514,928	$128,158	$37,693
North Dakota	$467,040	$15,000	$11,200
Northern Marianas	$225,000	$0	$0
Ohio	$2,057,402	$174,050	$51,191
Oklahoma	$1,004,040	$82,432	$0
Oregon	$860,428	$89,403	$21,409
Pennsylvania	$2,325,547	$196,734	$69,966
Puerto Rico	$225,000	$18,590	$5,468
Rhode Island	$225,000	$18,590	$5,468
South Carolina	$762,028	$64,465	$18,960
South Dakota	$0	$0	$0

Tennessee	$1,085,002	$109,530	$32,643
Texas	$2,500,000	$0	$60,000
Utah	$411,149	$34,782	$10,230
Vermont	$225,000	$25,000	$5,468
Virgin Islands	$0	$0	$0
Virginia	$1,278,848	$132,879	$31,819
Washington	$1,078,093	$112,020	$26,824
West Virginia	$408,380	$42,433	$12,286
Wisconsin	$1,247,120	$105,502	$31,030
Wyoming	$286,963	$25,315	$7,003
TOTAL	$49,936,940	$4,250,000	$1,250,000

ROADSIDE INSPECTIONS

Mr. CARR. Please provide a table that shows the number of roadside inspections conducted, and the number of vehicles and drivers placed out-of-service as a result of these inspections for each of the fiscal years 1990 through 1993.

[The information follows:]

Table

	Inspections	Vehicle OOS	Drivers OOS
Fiscal year:			
1990	1,601,230	541,575	1,123,817
1991	1,574,188	497,117	126,517
1992	1,655,668	461,715	119,900
1993	1,946,833	506,467	128,680

STATE BY STATE DATA ON INSPECTIONS

Mr. CARR. Please provide a table showing state-by-state data for the most recent year available on the number of drivers/vehicles inspected; the number of drivers/vehicles found in violation of out-of-service orders; the number of drivers/vehicles reinspected; the number of reinspected drivers/vehicles found in violation; the amount of fines levied for violation of out-of-service orders; and expenditures on covert verification activities.

[The information follows:]

The numbers provided on the following table show reinspection activities for both out-of-service verification and covert activities. The dollar amounts are projected dollars provided by the states in their grant applications. We are working with those states that reported no covert activities to address this requirement.

We have not required the states to provide the amount of fines levied for violation of out-of-service. It is impractical for the states to report information related to the amount of the fine for several reasons: (1) In many instances, and as a normal procedure, the court does not report back to the enforcement agency the amount of the fine levied; (2) the states are not in the position to require the courts to report fine information to the enforcement agency; and (3) under MCSAP we do not have jurisdiction over the courts. The ISTEA recognized these issues and did not mandate specific fines, but directed that, "to the maximum extent practicable," the states seek to implement the recommended fine schedule published by the Commercial Vehicle Safety Alliance (CVSA). In a state's MCSAP grant application, they are required to report on their penalty structures, the reasonableness and appropriateness of the penalties, and the steps they are taking to approximate the CVSA fine schedule.

OOS VERIFICATION AND COVERT ACTIVITIES - FY 93

ST	DRIV/ VEH INSP.	OOS VERIFICATION TOT VEH OOS	VEH REPAIRED AT SCENE	# TOWED ESCORTED	COVERT ACTIVITIES DRIV/VEHI REINSPECTED	DRIV/VEH STILL IN VIOLATION	FY 93 COVERT $ PROJECTED
CT	15,160	5,095	1,109	144	41	4	$4,800
MA	24,235	4,722	153	0	114	27	$2,700
ME	4,750	2,012	42	2	40	5	$2,800
NH	12,051	2,293	252	46	1	0	$1,800
NJ	10,673	2,191	496	271	178	5	$70,000
NY	29,641	11,241	0	0	17	5	$2,745
PR	3,874	1,439	0	0	36	0	$7,000
RI	4,780	1,043	226	100	27	7	$1,350
VT	5,394	1,054	246	0	12	1	$2,500
DC	4,392	747	7	0	5	0	$0
DE	5,322	1,608	242	3	2	2	$1,000
MD	69,437	10,046	0	0	20	2	$8,000
PA	44,412	26,258	0	0	76	4	$90,000
VA	35,390	8,965	5,217	919	115	4	$15,000
WV	14,381	3,047	346	410	54	12	$30,000
AL	17,791	3,864	1,013	851	14	1	$2,000
GA	27,599	8,219	3,130	1,302	68	4	$10,000
KY	90,818	24,427	13,693	831	50	15	$9,800
MS	22,274	5,776	5,176	32	42	2	$0
NC	58,703	12,324	2,099	545	992	4	$12,480
SC	20,442	3,741	1,305	334	20	3	$5,717
TN	117 784	37,841	16,938	1,966	1,838	2	N/A
IL	90,261	14,796	3,040	0	9	1	$18,400
IN	67,856	14,693	5,235	2,236	3	3	$5,000
MI	40,533	11,164	0	0	0	0	$9,500
MN	33,064	7,686	6,311	2,163	0	0	$500
OH	72,985	23,568	1,119	405	143	29	$18,000
WI	26,866	7,366	836	49	31	24	$16,733
AR	36,539	5,925	1,303	278	0	0	$2,000
LA	31,975	8,730	3,877	0	2	2	$1,836
NM	17,984	4,893	5,419	36	21	5	$3,400
OK	13,176	3,176	212	272	28	1	$1,728
TX	79,416	17,824	3,705	2,613	45	20	$9,120
IA	50,122	8,402	958	3	1,065	74	$7,367
KS	17,915	5,137	1,716	84	144	34	$9,864
MO	80,797	24,610	8,054	284	0	0	$3,000
NE	20,291	4,261	1,276	1,727	55	23	$33,979
CO	47,588	9,443	2,788	576	312	11	$16,776
MT	18,333	2,696	472	49	0	0	$3,450
ND	9,360	1,506	512	275	18	0	$1,000
UT	15,707	5,631	3,788	291	101	9	$46,673
WY	8,747	1,298	1,023	0	66	13	$1,750

AS	2,042	683	49	69	0	0	$0
AZ	27,612	7,784	2,398	34	75	1	$8,235
CA	369,541	104,188	0	0	300	2	$6,000
GU	5,573	1,251	0	0	0	0	$0
HI	6,191	658	581	194	0	0	$0
NV	6,615	2,070	734	954	82	13	$8,640
AK	1,478	516	202	89	0	0	$2,720
ID	7,163	1,917	1,288	112	2	1	$1,250
OR	24,855	8,106	927	0	31	4	$50,000
WA	76,945	18,536	856	0	6	3	$945

DISTRIBUTION OF SAFETY RATINGS

Mr. CARR. Please update the distribution of safety ratings for carriers rated in fiscal year 1993.

[The information follows:]

	Fiscal year		
	1991	1992	1993
Satisfactory	6,954 (43%)	5,742 (47%)	4,894 (47%)
Conditional	5,628 (35%)	3,935 (32%)	3,311 (32%)
Unsatisfactory	3,614 (22%)	2,622 (21%)	2,152 (21%)
All Ratings	16,196 (100%)	12,299 (100%)	10,357 (100%)

FATAL ACCIDENT RATES

Mr. CARR. Please provide a table that shows fatal accident rates for combination vehicles, medium and heavy trucks, and all vehicles for fiscal years 1985 through 1993.

[The information follows:]

FATAL ACCIDENT RATES

[Per 100-million miles of travel]

Year	Fatal accident rate combination vehicles	Fatal accident rate medium and heavy trucks	Fatal accident rate all vehicles
1985	4.9	3.8	2.2
1986	4.7	3.7	2.2
1987	4.4	3.5	2.2
1988	4.4	3.5	2.1
1989	3.9	3.2	1.9
1990	3.7	3.0	1.9
1991	3.2	2.7	1.7
1992	2.9	2.5	1.6
1993	(1)	(1)	(1)

(1) Data not available.

Source: Fatal Accident Reporting System.

Mr. CARR. Please provide a table showing truck accidents reported to the Office of Motor Carrier Safety similar to that shown on page 584 of the 1993 hearing record.

[The information follows:]

TRUCK ACCIDENTS REPORTED TO THE OFFICE OF MOTOR CARRIERS 1979 TO 1992

Effective in 1986, the minimum reporting threshold for property damage accidents was increased from $2,000 to $4,200, and again in 1987 and subsequent years to $4,400 in order to more accurately account for the effects of inflation. This caused what appeared to be a dramatic decrease in accident counts from 1985 to 1986. Therefore, the Office of Motor Carriers has applied an adjustment factor equivalent to an approximate GNP deflator to property damage accident counts and property damage value for the years prior to 1986. The following table reflects the adjusted property damage and total accident counts:

ADJUSTED TRUCK ACCIDENT STATISTICS 1979 TO 1991

[The following statistics may vary slightly from previously reported statistics due to refinements in the data]

Calendar year	Fatal accidents	Fatalities	Injury accidents	Injuries	Property damage only	Total accidents	Property damage limit
1979	2,528	3,072	19,605	32,126	10,189	32,322	2,624
1980	2,058	2,528	16,959	27,149	9,203	28,220	2,820
1981	2,191	2,810	17,062	28,533	8,519	27,772	3,065
1982	1,978	2,456	16,354	26,117	8,669	27,001	3,350
1983	2,031	2,528	16,022	26,692	7,979	26,032	3,675
1984	2,195	2,721	17,792	29,149	9,592	29,579	3,897
1985	2,161	2,646	18,135	28,988	8,772	29,068	4,047
1986	2,101	2,616	15,084	25,106	9,044	26,229	4,200
1987	2,410	2,907	16,734	28,018	8,335	27,479	4,400
1988	2,675	3,309	18,504	31,295	11,599	32,778	4,400
1989	2,642	3,451	19,556	34,653	13,143	35,341	4,400
1990	2,569	3,258	19,144	33,771	18,322	40,035	4,400
1991	2,417	3,036	18,800	32,889	13,188	34,405	4,400
1992	2,196	2,669	18,355	31,727	13,547	34,098	4,400

Note.—Prior to March 4, 1993, motor carriers were required to file accident reports (MCS 50–T, MCS 50–B) with the Federal Highway Administration. There is substantial evidence that a significant number of accidents were not being reported by carriers. Since March 4, 1993, carrier reporting has been replaced by the States reporting information directly from police accident reports. The police reports are expected to contain more reliable accounts of individual accidents and will likely give us a considerably better accounting of the number of accidents occurring annually.

ROADSIDE INSPECTIONS, SAFETY AUDITS, INVESTIGATIONS AND ENFORCEMENT

Mr. CARR. Please provide a table showing the number of driver/vehicle roadside inspections, safety audits, investigations, enforcement cases and funds collected for fiscal years 1990 through 1993 and the estimates for fiscal years 1994 and 1995.

[The information follows:]

	Fiscal year					
	1990	1991	1992	1993	1994	1995
No. driver/vehicle inspections (in millions)	1.60	1.57	1.66	1.95	1.95	2.3
No. carrier reviews	20,494	25,386	20,288	18,523	19,000	15,500
No. of investigations	1,756	2,289	1,907	2,540	2,500	2,750
No. enforcement cases prosecuted and closed	1,551	1,824	2,224	2,290	2,300	2,450
Amount of fines settled ($000s)	7,302	8,387	10,155	10,026	10,000	10,500

The number of inspections will increase with Florida entering MCSAP and uplading SAFETYNET data. The number of inspections will also increase with added funding for traffic enforcement.

We anticipate that the States will conduct 50 percent fewer safety reviews in FY 1995 consistent with the shift away from safety reviews. As part of this, we estimate the States will conduct about 500 more compliance reviews in FY 1995. This will continue to increase in the out years as more States become fully trained in the compliance review process. As compliance reviews are more indepth than safety reviews and take more time, we expect the overall number of carrier reviews to decline in 1995 compared to 1994—reflecting the shift of emphasis to compliance reviews from safety reviews. The amounts for investigations, cases and fines are estimates based on the States conducting more compliance reviews.

CARRIERS AND SAFETY INVESTIGATIONS

Mr. CARR. Also please provide a table showing total carriers, safety investigators, and the ratios of staff to motor carrier sand staff to drivers.

[The information follows:]

	Fiscal year				
	1991	1992	1993	1994	1995
Total interstate carriers	238,000	247,000	261,000	282,000	293,000
Safety specialists	366	397	389	389	389
Ratio of staff to interstate carriers	1:716	1:657	1:671	1:725	1:753
Ratio of staff to CDL drivers	1:15,027	1:13,854	1:16,195	1:17,224	1:17,481

The numbers shown in this table for "safety specialists" include safety investigators and program managers. These are generally located in division offices who are responsible for reviews, enforcement, technical assistance, and managing the direct-Federal and state compliance and enforcement activities.

The ratio of staff to drivers in this table is based on the number of CDL licensed drivers. Since this group does not include most drivers licensed for commercial motor vehicles having gross weights between 10,001 and 26,000 pounds, and it does include CDL drivers who are not subject to the Federal Motor Carrier Safety Regulations (FMCSRs) (e.g., government employees including transit and school bus drivers), a ratio may not be meaningful. Currently there is no accurate source of identifying how many of the smaller vehicle drivers are subject to the FMCSRs.

ZERO-BASE REVIEW OF MOTOR CARRIER SAFETY REGULATIONS

Mr. CARR. What has been accomplished as a result of the Office of Motor Carriers zero-base review of the Federal Motor Carrier Safety Regulations and when do you expect the review to be completed?

[The information follows:]

The first Federal Motor Carrier Safety Regulations were issued in 1937. In the ensuing half century the regulations have been amended and added to numerous times in response to safety needs. Addressing these issues individually over time has resulted in complexity, formality and impracticality. Although our goal has been to establish a regulatory system that would best enhance commercial motor vehicle safety, we recognize that the motor carrier industry has changed. Our regulations have not kept pace with technological and highway safety advancements, in the areas of highway construction, vehicle design, and driver knowledge and ability.

The zero base review is a unique approach to national safety standards for trucks and buses and their drivers. Zero base was designed to examine all facets of commercial motor vehicle safety as though no regulations existed. It represents a multiyear, comprehensive effort to develop understandable, realistic, and effective regulations. The first phase began in fiscal year 1992.

In phase I, OMC conducted an extensive outreach effort to the motor carrier industry, state, and local enforcement community, to determine the regulations for the rulebook of the future. Hundreds of interested parties provided oral testimony and thousands of written comments were received to a regulatory docket. A final phase I report analyzing the comments and recommendations was completed in September, 1993. Based on many of the phase I comments and recommendations, a rulemaking to delete obsolete or redundant requirements that have no significant impact on safety has been proposed.

Many of the outreach recommendations will also provide the basis for a comprehensive literature search scheduled to begin this fiscal year in phase II. The literature search is being performed in an attempt to validate many of the recommendations. The research will provide a sound basis for OMC to change existing regulations, or for the promulgation of completely new regulations in some areas. Phase II is scheduled to be completed in early fiscal year 1996.

Phase III will begin in fiscal year 1996 and will involve writing and promulgating the rule book of the future. We anticipate Phase III will take 1 year.

Phase IV will be the final phase of the project. During this phase, we will develop user-friendly guides for drivers and motor carriers based on the new rule book. We will develop a marketing and education plan to get the word out. We expect this final phase of zero base to be completed in fiscal year 1997.

Mr. CARR. What are some examples of "outdated" motor carrier regulations identified through the zero-base review?

[The information follows:]

The Office of Motor Carriers conducted 11 public hearings and 14 focus-group sessions to solicit advice and recommendations from the regulated industry and the enforcement community on ways to improve our regulations. We received and have taken under consideration a significant number of the recommendations. Many of the commenters recommended we remove sections of the regulations that are obsolete, redundant, or that no longer reflect the operational realities of the industry. In response to some of the recommendations, we initiated a rulemaking in January that proposes to remove numerous sections of the regulations. Examples of the motor carrier regulations identified through the zero-base review and proposed to be removed are:

391.69 Drivers operating in Hawaii. This section contains a limited exemption for Hawaiian drivers. Drivers who will reach the age of 21 no later than April 1, 1976, may continue to drive within the State of Hawaii. Since this date has passed, the provision should be removed.

392.30 Lighted lamps; Moving vehicles. This section prohibits a motor vehicle to be driven unless the required lamps are lighted during the period of one-half hour after sunset to one-half hour before sunrise or whenever there is not sufficient light to discern persons and vehicles on the highway at a distance of 500 feet. This section is duplicated by state laws and can only be enforced by state or local agencies.

392.65 Sleeper berth; transfer to and from. This section prohibits a person to transfer to or from the sleeper berth while a motor vehicle is in motion unless by means of a direct access between the cab and the berth. This section is obsolete because there are very few truck tractors still in use that require entry into the sleeper berth from outside the vehicle.

Mr. CARR. The Office of Motor Carriers has a large backlog of rulemakings under development. In light of the backlog, why do you believe it prudent to devote staff resources to your zero-base review when several Congressionally-mandated rulemakings have been delayed?

[The information follows:]

The Office of Motor Carriers has made significant progress in reducing its regulatory backlog in the past year. We have completed several significant rulemakings: radar detector ban, seven drug and alcohol testing rules, and private motor carriers of passenger rule.

We believe we have a responsibility to address not only current rulemaking activities, but future safety regulatory requirements. The zero-base review, which is attempting to create effective, performance-based regulations and responding to our customers needs, is an important strategy.

Mr. CARR. Once zero-base review is completed, how will the FHWA disseminate the revised regulations to the 250,000 interstate motor carriers and how much will it cost?

[The information follows:]

The new rule book developed as a result of the zero-base review will be published in the *Federal Register* and by the Government Printing Office. However, prior to the final publication of the new rules, we will initiate phase IV of the zero-base review, which is the "education and marketing" phase. Under this phase, we will widely circulate user-friendly guidebooks and brochures that summarize the new rules for drivers, motor carriers, and different segments of the regulated industry such as the motorcoach operators, private operators, farmers, etc. We may also develop videotapes explaining the differences between the old and new regulations. In addition, we will issue numerous news releases, prepare articles for trade magazines and give briefings at motor carrier industry functions, including motorcoach and trucking conventions and truck shows. We plan to have a substantive recorded telephone message about the new regulations that may be accessed by calling OMC's 1–800 number. We also plan to develop a presentation package complete with a script and overheads to be used by both our headquarters and field staff in briefing the industry, the state and local enforcement community, as well as Congress. State personnel will also be provided with the presentation package to educate the industry as well. Additionally, the new rules will be made available through the FHWA's Electronic Bulletin Board System (FEBBS), and through industry bulletin boards such as those maintained by the American Association of Motor Vehicle Administrators and the United Bus Owners of America.

MOTOR CARRIER STAFFING

Mr. CARR. In the Senate report on the 1994 appropriations bill, the Office of Motor Carriers was directed to maintain the same number of personnel in the Office of Motor Carrier Standards during fiscal year 1994 as in fiscal year 1993. Please provide the fiscal year 1993 number of full-time equivalent staff for this office and indicate how you plan to comply with the directive in fiscal year 1994?

[The information follows:]

The number of full-time equivalent (FTE) staff for this office in fiscal year 1993 was 33.

During fiscal year 1994, we estimate at least this level of FTE. Furthermore, we have met the underlying concern of the Senate report language regarding the regulatory backlog. Several major rulemakings were published—including the radar detector ban, the drug and alcohol testing standard for motor carriers and the private motor carriers of passenger rule—and the first phase of the zero-base review was completed. Several other rulemakings will be issued shortly. The FHWA, with assistance from the Department, has also initiated a regulatory tracking system which identifies and shortens delays in regulatory processing.

In addition, we are developing an overall strategic plan which will include a two year rulemaking plan. The overall plan will address organizational needs, structure and staffing.

DRIVER QUALIFICATION STANDARDS

Mr. CARR. In October 1992, FHWAA issued a notice of proposed rulemaking regarding the issuance of waivers to commercial truck drivers who are insulin-using diabetics. Please discuss any risk assessments and medical evidence that supports the proposed regulatory action and indicate when a final rule will be issued.

[The information follows:]

The FHWA proposed revisions to the driver qualification standards for diabetes and initiated the waiver program for insulin-using diabetics in response, in part, to a petition from the American Diabetes Association. Comments to the October 1992 Notice of Proposed Rulemaking were analyzed and a Notice of Final Disposition was issued on July 29, 1993, that instituted a federal waiver study program for insulin-using drivers of commercial motor vehicles. Thirty-seven drivers have received the waiver.

Among the considerations that led the FHWA to begin issuing waivers from its diabetes standard is an analysis of a 1991 study conducted by the University of Pittsburgh, "Review of 49 CFR 391.41(b)(3) Regarding Diabetic Commercial Motor Vehicle Drivers." The analysis indicated that without any regulations to control driving privileges among insulin-using individuals, only 14 additional accidents per year would be likely to occur.

It is precisely because there is very little risk assessment information on a national level that the FHQA undertook the Federal diabetes wavier program. Through the program, the Agency is obtaining monthly reports on waived drivers' actual driving experiences, including number of miles driven and a breakdown of whether it was daylight or nighttime operation. These reports will be compared to similar reports from volunteer drivers who do not have diabetes, and the resulting "real world" empirical data will help the FHWA make informed decisions on the composition of a new federal diabetes standard. In addition, drivers who have received a waiver under this program must maintain a safe driving record consistent with the general population to remain in the program.

SAFETY REQUIREMENTS

Mr. CARR. FHWA recently issued a final rule to make private motor carriers of passengers subject to many of the safety requirements required of for-hire motor carriers. Please summarize the scope and impact of the new rule on private motor carriers of passengers.

[The information follows:]

The final rule, effective January 1, 1995, separates the private bus population into two groups (business and nonbusiness) based on whether the carrier is providing transportation of passengers in the furtherance of a commercial purpose. The FHWA estimates that ninety percent of the private bus population will fall into the nonbusiness category. The business group will be subject to all of the safety regulations. The nonbusiness group will be subject to the safety regulations as well, but will be exempt from the existing controlled substances testing regulations and all recordkeeping requirements.

The effective date of the final rule is being delayed to allow private motor carriers of passengers an opportunity to come into compliance with the safety requirements. the FHWA has already begun an aggressive outreach program to identify and educate private motor carriers of passengers. Through various associations and insurance companies we have obtained commitments to distribute an educational brochure and registration form directly to over 100,000 private motor carriers of passengers.

In addition, the FHWA plans to attend various conventions and seminars before the effective date of the final rule to provide educational assistance and guidance on bus inspection procedures.

EFFECTIVENESS OF PRIVATE SECTOR TRAINING

Mr. CARR. What is the status of the FHWA's study of the effectiveness of private sector training for entry level commercial motor vehicle drivers and when do you anticipate that a report will be submitted to Congress?

[The information follows:]

The study of the effectiveness of private sector training to ensure adequate training of entry level drivers of commercial motor vehicles is expected to be completed in August. We expect to submit the required report to the Congress no later than December 31, 1994.

Mr. CARR. FHWA proposed an advanced notice of rulemaking concerning entry level training for commercial motor vehicle drivers in January 1993. Do you plan to consider the conclusions of the FHWA study on private sector truck driver entry level training and, if so, why was the advanced notice issued prior to the completion of the study?

[The information follows:]

The FHWA plans to utilize the information learned from both the study and the docket comments to the advanced notice of proposed rulemaking to develop the notice of proposed rulemaking or the close out notice, whichever is more appropriate. The advance notice of proposed rulemaking was published to collect as much information about driver training as possible in order to assist the FHWA arrive at a proper proposal.

ENTRY LEVEL DRIVER TRAINING

Mr. CARR. What is your schedule for completion of the rulemaking on entry level driver training?

[In information follows:]

A schedule for the entry level driver training rulemaking depends on the results of our contractor's study. If warranted, the notice of proposed rulemaking to establish entry level driver training standards is targeted for publication in July 1995. A final rule, if appropriate, is targeted for July 1996.

Mr. CARR. What is the rationale for the proposed exclusion of transit bus operator from proposed entry level driver training requirements?

[The information follows:]

The FHWA decided to exclude transit buses from its study because: (1) this group is generally not subject to the Federal Motor Carrier Safety Regulations, except for the requirements of the commercial driver's license program, and (2) many transit authorities operated by local governments require knowledge and skills training for their bus operators.

MOTOR CARRIER SAFETY RULEMAKINGS

Mr. CARR. Please provide a list of all rulemakings that are pending or under development.

[The information follows:]

MOTOR CARRIER SAFETY RULEMAKINGS UNDER DEVELOPMENT OR CONSIDERATION AS OF MARCH 4, 1994

Title: Alcohol Testing Devices

Description: This notice will propose performance oriented specifications for alcohol testing devices.

Title: Qualifications of Drivers; Medical Examination

Description: This rule is the physician's assistant rule. This rule contains technical amendments to the final rule that was published on 07/28/92 (57 FR 33276).

Title: Qualification of Drivers; Vision

Description: This notice will propose to amend the vision standards in response to data obtained from the vision waiver research program.

Title: Qualification of Drivers; Diabetes

Description: This rule will amend the diabetes requirement in response to data obtained from the waiver research program.

Title: Qualification of Drivers; Epilepsy

Description: This notice will seek comments from interested parties on the need to review and, as appropriate, amend the driver requirements relating to epilepsy and neurological disorders, and propose a waiver program.

Title: Medical Regulatory Criteria and Guidelines

Description: This notice will provide the medical regulatory criteria and guidelines which explain and/or provide clarification of the medical qualification requirements contained in Part 391.41 of the FMCSRs.

Title: Revision of Medical Examination Form and Procedures

Description: This notice will seek information for the redesign of the existing medical examination form as well as amending the examination procedures to reflect the latest medical and technological advances.

Title: Qualification of Drivers; Cardiac Disorders

Description: This notice would propose to amend section 391.41(b)(4) and update the cardiac portion of the medical criteria.

Title: Special Equipment

Description: This notice would propose to accommodate certain types of special equipment that are not properly covered by the FMCSRs (e.g., heavy duty farm, construction, and special purpose equipment that cannot now comply with the FMCSRs because of their particular function, yet they are classified as CMVs.)

Title: Rear Under Ride Protection

Description: This notice would be a companion rule to NHTSA's rulemaking on rear under ride devices.

Title: Parts and Accessories Necessary for Safe Operation; Intermodal Containers

Description: Addresses section 393.100(e) and the transportation of intermodal containers aboard flatbed vehicles.

Title: Automatic Brake Adjusters

Description: The NHTSA published a final rule which amended FMVSS 105 and 121, requiring automatic brake adjusters on medium and heavy duty vehicles with hydraulic and air brake systems and brake adjustment indicators on most air-braked vehicles. The FHWA will have to make certain conforming amendments to Part 393.

Title: Parts and Accessories Necessary for Safe Operation; Protection Against Shifting or Falling Cargo

Description: This rule will replace the static breaking strength requirement for cargo tiedown assemblies with a working load limit requirement. A table will be added to provide a means of determining the number of tiedown assemblies required.

Title: Alternative Fuel Systems

Description: The NHTSA published an ANPRM on CNG and LPG vehicles in which it proposes to amend FMVSS 301. An NHTSA final rule would require the FHWA to amend its fuel systems regulations.

Title: Anti-Lock Brake Systems

Description: The NHTSA expects to publish a NPRM amending FMVSS 121 to require anti-lock brakes on all commercial motor vehicles. The FHWA will have to develop companion regulations to require motor carriers to maintain the anti-lock system.

Title: Revision of Part 393

Description: This notice will make technical amendments to correct errors, omissions, and contradictions in Part 393. This rulemaking is affiliated with zero-base review.

Title: Parts and Accessories Necessary for Safe Operation; Coupling Devices; Towing

Description: This notice will address a petition requesting the FHWA to amend section 393.70.

Title: Parts and Accessories Necessary for Safe Operation; Front Wheel Brakes on Mexican Commercial Motor Vehicles

Description: Makes the interim final rule published in 1989 a final rule.

Title: On-Board Recording Devices

Description: This notice would seek information with which to update Section 395.15 of the FMCSRs to reflect latest technological advances and seek information about personal security of information uploaded to computers from the on-board devices.

Title: Amendments to the Periodic Inspection Requirements

Description: This notice will propose to amend the periodic inspection requirements to correct some oversights in original final rule.

Title: Federal Motor Carrier Safety Regulations; General; Commercial Motor Vehicle Definition

Description: Withdraws the ANPRM addressing the commercial motor vehicle weight threshold for the applicability of the FMCSRs.

Title: Parts and Accessories Necessary for Safe Operation; Warning Devices for Stopped Vehicles

Description: This rule will change section 393.95, concerning fusees.

Title: Learner's Permits for CMV Operators

Description: This rule will clarify the minimum Federal standards for state-issued learners' permits that allow drivers to be trained in the operation of CMVs.

Title: Violations of Out-of-Service Orders

Description: This rule will make any violation of an out-of-service order by a driver of a CMV a disqualifying offense under Parts 383 and 391.

Title: State Compliance With Commercial Driver's License Program

Description: This rule will establish compliance standards for states with the CDL program and its disqualification requirements and establishes a process to determine the level of compliance with these standards.

Title: Commercial Driver Physical Fitness as Part of the Commercial Driver's License Process

Description: This notice will propose to include the medical examiner's certificate in the commercial driver's license process.

Title: Training for Entry Level Drivers of Commercial Motor Vehicles

Description: This notice would propose standards for the training of all entry level commercial motor vehicle drivers.

Title: Mandatory Minimum Training Requirements for Operators of Longer Combination Vehicles

Description: This notice will propose to establish minimum training requirements for LCV operators and address instructor certification requirements.

Title: Minimum Uniform Standards for Biometric Identification System to Ensure Identification of Operators of Commercial Motor Vehicles

Description: The Advanced Notices of Proposed Rulemaking published in 1989 and 1991 and a concurrent pilot project revealed the shortcomings of present technology.

Title: Removal of Regulations and Technical Amendments Within Parts 383, 390, 391, 392, 395, and 399 of the Federal Motor Carrier Safety Regulations

Description: This notice will propose to remove regulations and make technical amendments in the mentioned parts of the FMCSRs. This rulemaking is in response to the zero-base review.

Title: Federal Motor Carrier Safety Regulations; General; Intermodal Transportation

Description: This rule will implement the certification requirements for tenderers and motor carriers of intermodal containers and trailers.

Title: State Laws and Regulations Affecting Interstate Motor Carrier Operations; Establishment of a Compliance Date

Description: Will establish a compatibility date which will eliminate possibilities of preemption actions for States participating in MCSAP, that have not yet achieved compatibility with the FMCSRs.

Title: Incorporation of Interpretations of the FMCSRs

Description: Would codify certain regulatory interpretations in the FMCSRs

Title: Federal Motor Carrier Safety Regulations; Technical Amendments

Description: This rule will amend Parts 387 and 397 of the FMCSRs

Title: Federal Motor Carrier Safety Regulations; General; Motor Vehicle Marking

Description: This notice will propose to require motor carrier identification numbers to be marked on all CMVs subject to the FMCSRs.

Title: Certification of Size and Weight Enforcement

Description: Will extend the comment period.

Title: Length and Width Exclusive Devices

Description: This notice will propose criteria for determining what devices are excluded from measurements of trailer length and width.

Title: Truck Size and Weight; Restrictions on Longer Combination Vehicles (LCVs) and Vehicles With Two or More Cargo-Carrying Units

Description: This rule will establish vehicle and operational restrictions for LCVs and vehicles with two or more cargo carrying units on the Interstate Highway System.

Title: Safety Fitness Procedures; Safety Ratings

Description: This notice will propose to codify the safety rating procedures used by FHWA to assign safety ratings to motor carriers.

MOTOR CARRIER RESEARCH PROGRAM

Mr. Carr. What are some of the most significant accomplishments of the motor carrier research program during the past year?

[The information follows:]

In fiscal year 1994, many of the research activities will continue into fiscal year 1995 and beyond. Some of these activities are:

DRIVER PROFICIENCY

Obtaining scientific data on the commercial driver's ability to remain alert in a variety of driving situations.

Establishing a proactive medical advisory board to provide the Office of Motor Carriers with input and medical standards and expert mediation on medical conflict determinations.

Evaluating current driver vision requirements for possible regulatory changes.

VEHICLE SAFETY AND PERFORMANCE

Beginning an assessment of data to identify the nature and causes of the most prevalent brake defects.

Initiating a cooperative research effort with Transport Canada to investigate and establish standards for the safe securement and transportation of loads on heavy trucks.

Initiating research to determine minimum standards for motor coach mechanics and recommended training requirements.

MOTOR CARRIER SAFETY ANALYSIS AND INFORMATION

Implemented the Office of Motor Carriers Automated Regulations and Interpretations System (MCREGIS).

Completed configurations study of Motor Carrier Management Information System and began testing feasibility of running major parts of MCMIS on less expensive computer equipment

Developing an updated and enhanced SAFETYNET software; e.g., new fields for inspections, new safety rating algorithm, new complaint module, enhanced carrier census data, and several new management reports.

Produced a report on bus accidents covering a 5-year period.

Provided over a thousand motor carrier safety ratings and information about carriers to the public each month.

REGULATORY COMPLIANCE AND ENFORCEMENT

Improving enforcement of carrier compliance with vehicle weight provisions.

Initiating the second phase of the zero-base regulatory review to evaluate recommended changes and develop a model of new, performance-based regulations.

Conducted outreach with interested government agencies and private organizations on options to improve the safety fitness rating methodology.

MEDICAL WAIVER PROGRAMS

Mr. CARR. Please discuss the research pertaining to commercial waivers for epileptic, hearing and vision-impaired drivers, including any risk assessments and medical evidence that support proposed regulatory actions.

[The information follows:]

A major reason behind the ongoing medical waiver programs and those under consideration is the relative lack of empirical risk assessment information. The monthly reports from waived drivers on their actual driving experiences will greatly aid the FHWA in making critical decisions about whether the current medical regulations need to be revised. In addition, we have convened medical conferences with medical experts in these areas and practitioners who help guide our decisions in rulemaking. The information obtained from these waiver programs, other research and comments from the public will assist FHWA in deciding if the current commercial motor carrier driver qualifications standards should be changed.

The FHWA's federal vision waiver study program is nearing the end of its second year. Drivers' waivers are valid for 3 years from the date of issue. Prior to proposing the vision waiver program, the FHWA contracted with Ketron, Inc., to study the relationship between visual disorders and commercial motor vehicle safety. The Ketron study illuminated the lack of sufficient empirical data to establish a link between such disorders and the safety of drivers operating heavy trucks and buses. The study also failed to provide a sufficient foundation on which to propose a satisfactory federal vision standard for drivers of commercial motor vehicles. The federal vision waiver study program, with its pre-approval safeguards, post-approval controls on drivers, and driver reporting requirements, will enable the Agency to obtain such empirical information without comprising highway safety.

An advance notice of proposed rulemaking seeking comments on the need to amend the Federal hearing standard was published on December 15, 1993. Also on that date, a notice was published stating the FHWA's intent to begin a hearing waiver program similar to the diabetes and vision waiver programs. Comments on the notices are due on April 5 and 15, 1994, respectively, and will be analyzed in detail.

An epilepsy waiver program is under consideration, but no *Federal Register* notices have been published. The FHWA convened a panel of experts in 1988 to review the current standard for epilepsy and other neurological conditions.

EVALUATION OF DRIVER FITNESS FOR DUTY

Mr. CARR. What have you learned about new, innovative technologies for evaluating driver fitness-for-duty?

[The information follows:]

The FHWA has learned of several new, innovative technologies and procedures available to improve commercial driver highway performance and detect unsafe, fatigued drivers. Several of these technologies were discovered through research contracts, soliciting states for new, innovative technologies, and examining how other safety agencies are conducting business. However, none of the new technologies have been scientifically validated in a real-world condition.

Currently, under a contract with the Trucking Research Institute, the FHWA is evaluating in-terminal and in-vehicle testing technologies and devices. The purpose of the research is to evaluate the feasibility of fitness-for-duty testing devices and tests by commercial motor carriers of their drivers. Specifically, the testing devices include desktop computer platforms; miniaturized, computer platforms installed in truck cabs; and other such devices.

Also, for several years the FHWA funded a special on-the-highway hours-of-service study for the State of Arizona. The Arizona Department of Public Safety developed and tested a motor skills testing device and procedures to identify potentially fatigued drivers. While this device may have potential to determine a driver's fitness for duty, its use as an enforcement tool has not been tested in the courts.

DRIVING PERFORMANCE OF OLDER DRIVERS

Mr. CARR. In the Committee's report on the 1993 Transportation Appropriations bill, the Committee directed the Office of Motor Carriers to conduct research on the driving performance of older truck drivers. What specific research projects were undertaken in response to the Committee's directive and what have you learned?

[The information follows:]

The FHWA entered into a contractual agreement on September 17, 1993, with the American Trucking Association's Trucking Research Institute, in order to respond to the Committee's directive. A task order was assigned to the contractor on September 30, 1993, to begin the initial work. Currently, the Office of Motor Carriers, with technical assistance from human factor experts, is completing a review of the contractor's literature search, study justification, and proposed work plan.

BRAKE SYSTEMS RESEARCH

Mr. CARR. What have been the results of the Office of Motor Carriers' cooperative research with the American Trucking Associations on heavy truck brake systems?

[The information follows:]

The contract was awarded in September 1993, to the American Trucking Associations' Trucking Research Institute (TRI). No results are available at this time.

The FHWA and TRI are working closely together on this project as the TRI undertakes the initial phase of this effort. Its purpose is to identify the nature and cause(s) of the most prevalent brake defects. The FHWA-supplied data on commercial vehicle accidents and out-of-service orders are being reviewed by TRI in this effort. Also, motor carrier managers and drivers, equipment suppliers, and manufacturers are being contacted to identify the cause(s) of brake defects. This phase is expected to be completed in mid 1995.

The next phase the effort will be to determine if further research is needed to test and evaluate potential solutions to the problems identified, and to recommend workable solutions, including regulatory changes, educational efforts, or technological improvements that may enhance commercial vehicle brake performance.

MOTOR CARRIER CONTRACT RESEARCH PROGRAMS

Mr. CARR. Please provide a list showing motor carrier contract research projects and their costs in each of fiscal years 1992, 1993, and 1994.

[The information follows:]

OFFICE OF MOTOR CARRIERS
RESEARCH PROJECTS FOR FY 92, FY 93 AND FY 94
(In thousands)

Project	FY 92 Costs	FY93 Costs	FY94 Costs
Comments to NPRM Docket on Hazardous Material Routing	50	--	--
Regulatory Impact Analysis for 10,000 to 26,000 lbs. Vehicles	13	--	--
Training Drivers on Twin Trailers	14	--	--
Ohio Test Track	100	--	--
SAFETYNET Technical Support	100	100	--
Optical Disk Scanning Service	48	--	--
Use of Low Speed Weigh-in-Motion for Weight Enforcement	140	--	--
Staff Support for Uniformity Working Group Meeting	25	--	--
Commercial Motor Vehicle Driver Alcohol Testing and Regulatory Impact Analysis	10	--	--
Support for Implementation of the April 1, 1992 CDL Deadline	10	--	--
Regulatory Impact Analysis for Drugs and Alcohol	6	--	--
MCMIS Systems and Configuration Study	100	100	--
Motor Coach Passenger Safety	150	46	--
IFTA Repository	50	50	--
Prototype State Medical Review	400	267	--
Section 22 HM Uniformity Working Group	250	221	--

Hazardous Materials Incident Countermeasures	75	148	--
Pilot of Model State Medical Review Standards	--	89	--
Motor Coach Driver Training	--	195	--
Safety Performance Data Analysis	--	9	--
Arrangements for and Management of International Symposium on Motor Carrier Transportation	--	13	--
Review and Revise Medical Examination Materials and Forms	--	20	--
Criteria for Training Drivers on the Safe Operation of Triple Trailer Combination Truck Vehicles	--	25	--
On-Call Bus Driver Human Factors	--	100	--
Development of Voluntary Criteria for Training Drivers in the Safe Operation of Turnpike Doubles and Rock Mountain Combination Truck Vehicles	--	25	--
Operation of the Information and Dissemination and Quality Programs of MCMIS	300	149	480
Fatigue and Driver Alertness Study	804	83	42
Supplement the National Highway Traffic Safety Administration's General Estimate System	75	75	75
Trucks Involved in Fatal Accidents	50	75	75
Zero Based Review of Regulations Phase I	150	319	20
Physiological Measurement of CMV Drivers	21	153	3
Truck Tire Characteristics	50	50	50
Lap Top Support	150	100	250

Assess Driver Waiver Program (Drivers Vision Evaluation, etc.)	300	716	650
AAMVA/AAMVANET Support	--	150	310
Pilot Section 22 HM Uniformity	--	150	150
SAFETYNET Enhancements	--	155	150
OMC Informational Materials	--	75	250
Relevant Evidence Demo Project	--	100	100
Quality Improvements for Safety Fitness Determination	--	300	250
Motor Carrier Program Safety Performance	--	125	125
LCV Accident Study	--	--	200
Zero Based Review of Regulations Phase II	--	--	230
Premier Carrier Program Selection Criteria Analysis	--	--	23
Medical Analysis of the Impact Safety for Diabetics	--	--	2
MCREGIS - An Automated Regulations and Interpretations Database	--	--	110
Alternative for Annual Census Update	--	--	100
Rest and Recovery Cycles of CMV Drivers	--	--	--
Automated Roadside Inspections	--	--	425
Wheels and Bearings Guidelines	--	--	150
The Effects of Loading and Unloading on Driver Fatigue	--	--	100
Canadian Cargo Testing	--	--	50
Medical Advisory Board	--	--	150
LCV Driver Fatigue	--	--	170
Analysis of CMV Accident Data	--	--	130

Develop Model Training Curriculum for Bus Mechanics	--	--	100
CDL Effectiveness Study	--	--	275
Motor Carrier Safety Program Efficiency Studies	--	--	150
TOTALS	3,579	4,183	5,345

ONGOING RESEARCH PROJECTS

Mr. CARR. What portion of the $8.8 million requested for research and development is needed to continue ongoing research projects, and what portion would be allocated to new initiatives?

[The information follows:]

Approximately $5.34 million of the $8.8 million requested in fiscal year 1995 is needed to continue ongoing research. The remaining funds will be directed to new initiatives which are an extension of existing efforts or are in new topic areas. The existing efforts focus on driver proficiency, vehicle safety, new technologies, and regulatory analysis. Other projects were identified in the FHWA office of Motor Carriers' 5-Year Research and development Plan.

The following chart describes ongoing, extension of existing projects, and new projects for fiscal year 1995:

OFFICE OF MOTOR CARRIERS PROPOSED FISCAL YEAR 1995 RESEARCH BUDGET

[In thousands of dollars]

	Ongoing	Extension	New	Total
Commercial Driver Proficiency	$1,025	$500	$550	$2,075
Commercial Vehicle Safety & Performance	475	0	525	1,000
Motor Vehicle Safety Analysis & Information	1,870	342	115	2,327
Regulatory Compliance & Enforcement	745	350	480	1,575
Regulatory Reform	500	0	0	500
Motor Carrier Industry Economic Health	725	102	0	827
Advanced Technology	0	0	500	500
Totals	5,340	1,294	2,170	8,804

NEW RESEARCH INITIATIVES

Mr. CARR. What new research initiatives would be undertaken during fiscal year 1995 and how do these initiatives relate to the Office of Motor Carriers 5-Year Research and Development Plan?

[The information follows:]

In "Moving Out, the FHWA's 5-Year Motor Carrier Research and Development Plan," the Office of Motor Carriers (OMC) developed a strategic approach to research for the 1990's. Potential projects were grouped into 7 selected categories designed to reflect the organization's major safety and productivity goals and activities. New research in 1995 falls under the following categories: driver proficiency; vehicle safety and performance; regulatory compliance and enforcement; and safety analysis and information.

Driver Proficiency. In 1995, OMC is pursuing the plan's goals and proposed projects. A major new project will address driver training and proficiency needs by validating potential training simulators. These simulators offer states, motor carriers and training organizations efficient and effective methods to prepare commercial motor vehicle (CMV) drivers for safe operation on the nation's highways and to re-check the drivers proficiency over time. Drawing on pilot studies in several states, another driver-related safety project will be done with states to implement, at the state level, a medical evaluation package that states can use in certifying CMV drivers. A determination of effective fitness for duty technologies for use in-vehicle will also be completed. Funding associated with these activities is projected at $2 million for 1995.

Commercial Vehicle Safety and Performance. Several planned vehicle safety and performance projects also will be initiated. A study to evaluate and develop effective anti-lock brake inspection technologies and procedures will generate guidance to help inspectors accurately check the increasing number of trucks and trailers with ABS equipment. Another project will identify the causes of incompatibility of tractor and trailer brake system components and will recommend effective countermeasures. Standards for CMV tire tread depth, as well as the safety and reliability of retread tires in CMV operations, will be explored to determine if new standards are needed. Training for inspectors on the safe handling of alternative fuels in CMVs will be undertaken in order to enable them to safely assess vehicles using the cleaner fuels. As part of our efforts to improve the motor coach safety in particular, a model preventative maintenance guide for motor coach mechanics will be developed in cooperation with the industry. Recognizing that cargo tank vehicles carrying hazardous materials present a special concern for highway safety, a study of crashes involving them will be undertaken to identify structural or other changes that may reduce their accident and injury risk potential. Funding associated with these activities is projected at $1 million for 1995.

Safety Analysis and Information. Noting the success of "black box" technologies in other transportation modes, our research will consider the viability of using onboard recorders to document driver and vehicle accident information. On an ongoing basis, projects will continue to provide timely and accurate information about motor carrier status and accident rates. Funding associated with these activities is projected at $2.3 million for 1995.

Regulatory Compliance and Enforcement. We will complete phase 2 of our zero based regulatory review and develop model performance based regulations. Also in 1995, we will initiate a review to determine the extent of shipper influence on motor carriers and drivers adherence to established hours-of-service rules. Funding associated with these activities is projected at $2 million for 1995.

COMMERCIAL DRIVER'S LICENSE PROGRAM

Mr. CARR. Please provide a summary of your plans to evaluate the effectiveness of the commercial driver's license program, including what the total project cost, the amount included in your 1995 request and the schedule for project completion.

[The information follows:]

The FHWA is in the process of developing a plan to adequately measure the implementation effectiveness of the CDL program nationwide. This plan will also identify objective measures necessary to provide the essential foundation to quantify program accomplishments. We have long recognized the need to initiate such an action; however, we made the conscious decision to delay the effectiveness study until such time as the FHWA promulgated its final rule requiring states to substantially comply with the 22 Congressionally mandated items. We believe that by waiting until state compliance requirements are mandated, the FHWA will be in a much better position to determine the true effectiveness of the program from a national perspective.

We intend to analyze CDL data and systems in each state to ensure compliance with CDL. This data and the analysis will assist in identifying areas that improve or enhance driver proficiency in driving representative vehicles and that ultimately contribute to the enhancement of highway safety. Moreover, one of the key components of the research strategy is to identify effective mechanisms which assure that problem drivers (unqualified) are denied the opportunity or privilege to drive on our nation's highways.

Recently, the Senate Appropriations Committee provided guidance on what they believed to be one important measure of the CDL Program's effectiveness; i.e. how many drivers have been suspended or revoked after September 30, 1993, on a State-by-State basis. The FHWA's plan will include the Senate Appropriation Committee's measure as well as other factors considered important elements or objective measures of effectiveness.

The FHWA is currently working with the states through AAMVA, AAMVAnet, Inc., and CVSA to develop the research plan and statement of work for this 2-year "CDL Effectiveness and Benefits Study." The contract is expected to be awarded by the summer of 1994. This study is budgeted at approximately $275,000 of 1994 funds. We have requested an additional $100,000 for this project for 1995.

ALLOCATIONS FOR MAJOR RESEARCH PROGRAM ELEMENTS

Mr. CARR. Please provide a table that shows fiscal year 1993, 1994, and planned 1995 allocations for each of the major program elements (e.g. commercial driver proficiency, commercial vehicle safety performance, etc.) within the research and development budget.

[The information follows:]

OFFICE OF MOTOR CARRIERS RESEARCH AND DEVELOPMENT PROGRAM—FISCAL YEAR 1993–95

Projects	1993	1994	1995
1. Driver Proficiency	$1,603	$1,835	$2,075
2. Vehicle Safety/Performance	50	250	1,000
3. Motor Carrier Safety Analysis and Information	1,520	1,835	2,327
4. Regulatory Compliance and Enforcement	250	675	1,575
5. Regulatory Reform	320	250	500
6. Motor Carrier Industry Economic Health	440	500	827
7. Advanced Technology	....	0	500
Totals	4,183	5,345	8,804

STAFFING REDUCTIONS

Mr. CARR. The justifications show for the Office of Motor Carriers a fiscal year 1994 adjusted FTE level of 638, a reduction of 10 FTE below the fiscal year 1994 enacted level. What is the reason for the FTE's reduction and in what areas within the Office of Motor Carriers will the staff reductions occur?

[The information follows:}

The reduction of FTEs to the Motor Carrier program is a prorata share of the reduction to the overall Federal Highway Administration's FTE ceiling in accordance with Executive Order 12,839. We have not yet identified into which area—the field or headquarters—the reductions will occur.

Mr. CARR. What is the current on-board employment for the Office of Motor Carriers?

[The information follows;}

As of February 28, 1994, there were 676 full-time permanent employees in the Office of Motor Carriers.

Mr. CARR. How many full-time equivalents are allocated for safety inspectors in fiscal year 1994 and planned for fiscal year 1995?

[The information follows;}

As of February 28, 1994, there were 389 safety investigators, program specialists, and supervisors distributed throughout the field offices of the Office of Motor Carriers. We expect this number to the approximately the same in 1995.

Mr. CARR. How many hazardous materials specialists are authorized for fiscal year 1994 and planned for fiscal year 1995?

[The information follows:]

The Office of Motor Carriers currently has 40 full-time personnel in hazardous materials (HM) positions. In addition, all of OMC's safety investigators in the field perform hazardous materials reviews, enforcement, and technical assistance. We foresee no reduction in HM program/personnel resources in 1995 and plan to prioritize HM needs as part of our strategic plan.

SALARIES AND BENEFITS

Mr. CARR. The fiscal year 1995 request includes $34.873 million for salaries and benefits. What assumptions were made in your request regarding cost-of-living and locality pay, and health benefit increases?

[The information follows:]

Figured into the 1995 budget is a $587 thousand (1.6 percent) increase for the 1995 pay raise, $110 thousand for annualization of the 1994 locality pay increase, and a $154 thousand (10 percent) increase for health benefits.

Mr. CARR. What is the cost of the 1994 locality pay raise for Office of Motor Carrier employees and how were these costs absorbed?

[The information follows:]

The 1994 locality pay raise amounted to $983,000 which was absorbed through redistribution of priorities among object classifications.

TRAVEL FUNDING

Mr. CARR. The fiscal year 1995 request includes $5,674,000 for travel costs. Please provide a breakdown of your travel funding by function (e.g. inspections, administrative, training, etc.) for fiscal years 1994 and planned for fiscal year 1995.

[The information follows:]

	Fiscal year	
	1994	1995
Inspections	$3,745,000	$3,695,000
Training	1,135,000	1,235,000
Administrative	794,000	744,000
Total	5,674,000	5,674,000

Mr. CARR. Please provide a breakdown of the fiscal year 1995 request of $5.760 million for the all other category under other services.

[The information follows:]

The $5.760 million breakdown for the 1995 other category follows:

ADP services	$4,729,700
Training	416,000
Relocation	56,000
Support contracts	558,300
Total	5,760,000

LOCAL TECHNICAL ASSISTANCE PROGRAM

Mr. CARR. The budget for the local technical assistance program increases more than ten-fold in 1995, growing from $500,000 in 1994 to the requested $5,105,000. The justifications indicate that, as in prior years, "the bulk of the funding will be used to operate the 55 Technology Transfer Centers." That being the case, why is an additional $4,500,000 needed for this program in 1995?

[The information follows:]

The funding for the basic operation of the 51 State Technology Transfer Centers and the four Centers for American Indian tribal governments comes from the Intermodal Surface Transportation Efficiency Act (ISTEA) funds. The ISTEA expanded the audience served by the Technology Transfer Centers to include local governments in urban areas with populations between 50,000 and 1,000,000. The needs of urban local governments differ from those in rural areas and special courses and training materials need to be developed to meet these needs. Also, additional funding for outreach efforts to urban local governments is needed to let them know the types of services and training centers can provide.

The ISTEA also requires that FHWA provide assistance to local government agencies in the areas of bridge, pavement and safety management systems. Training courses, videos, and materials on the management systems need to be developed specially tailored for use with local governments. The ISTEA specifies that a tourism and recreational travel technical assistance program needs to be developed for use with local government agencies. Funding is needed to work with representatives of the centers, local governments, tribal governments, other Federal agencies, and the travel and tourism industry to develop the technical assistance program material.

In addition, American Indian tribal governments have special needs and training courses and materials need to be developed for use by the four Indian Centers. The ISTEA specifies that training on intergovernmental transportation planning and project selection and tourism recreational travel should be provided to tribal governments. Courses, videos and training materials need to be developed in these subject areas to meet the needs of tribal governments.

Of the 1995 requested amount, $500,00 is for the DOT share of the National Rural Initiative Program administered by the U.S. Department of Agriculture.

LOCAL TECHNICAL ASSISTANCE PROGRAM BY STATE

Mr. CARR. For the record, show the amounts provided for the 55 Centers for 1993, 1994, and 1995.

[The information follows:]

In the years 1993–1995 each of the 51 State Centers and the Center in Puerto Rico were (and will be) allowed to apply for a base amount of $110,000 to fund the operation of the Center. This funding is from the ISTEA funds.

The funding for the four Centers for American Indian tribal governments is equally split between the FHWA and the Bureau of Indian Affairs with each center recieving a total of $150,000 per year for the years 1993–1997. The Indian Centers are 100 percent Federally funded.

The following table shows the total amount of LTAP funds provided for the State centers in 1993, and 1994 and planned for 1995.

LTAP Center Funding

Year	Base amount ISTEA funds	Urban supplement GOE funds	Total
1993	[1] $5,635,000	$1,908,000	$7,543,000
1994	5,610,000	....	5,610,000
1995	5,610,000	1,908,000	7,518,000

[1] Extra funds in the amount of $25,000 were provided to the Minnesota Center which was established in late 1992.

FY 1993 LOCAL TECHNICAL ASSISTANCE PROGRAM BY STATE

STATE	TOTAL
Maine	$100,000.00
New Hampshire	$118,000.00
Vermont	$84,000.00
Massachusetts	$194,000.00
Rhode Island	$130,000.00
Connecticut	$162,000.00
New York	$174,000.00
New Jersey	$178,000.00
Puerto Rico	$142,000.00
Pennsylvania	$154,000.00
West Virginia	$118,000.00
Delaware	$114,000.00
Maryland	$134,000.00
Virginia	$170,000.00
North Carolina	$150,000.00
South Carolina	$116,500.00
Kentucky	$122,000.00
Tennessee	$130,000.00
Georgia	$128,000.00
Alabama	$134,000.00
Mississippi	$114,000.00
Florida	$246,000.00
Michigan	$226,000.00
Ohio	$186,000.00
Indiana	$150,000.00
Illinois	$194,000.00
Wisconsin	$158,000.00
Minnesota[1]	$171,000.00
Arkansas	$126,000.00

STATE	TOTAL
Louisiana	$146,000.00
Oklahoma	$138,000.00
Texas	$254,000.00
New Mexico	$122,000.00
Iowa	$142,000.00
Missouri	$142,000.00
Kansas	$134,000.00
Nebraska	$118,000.00
North Dakota	$114,000.00
South Dakota	$118,000.00
Montana	$118,000.00
Wyoming	$114,000.00
Colorado	$158,000.00
Utah	$134,000.00
Nevada	$138,000.00
Arizona	$146,000.00
California	$310,000.00
Hawaii	$114,000.00
Washington	$146,000.00
Oregon	$130,000.00
Idaho	$114,000.00
Alaska	$110,000.00

ON-THE-JOB TRAINING SUPPORT SERVICES

Mr. CARR. On-the-job training support services, for which no funding has been requested for several years, is budgeted for $10,000,000 in 1995. As noted in the budget documents, under title 23 U.S.C. 140, the states have the authority to use one-half of one percent of their funding apportioned in the surface transportation and bridge programs for this purpose. Especially given the recent increased funding level in the federal-aid highway program, why is separate consideration needed?

[The information follows:]

Because most of the states chose to use their apportionment on construction, rather than on training supportive services. Seven states in 1992 and 13 states in 1993 chose to use the one-quarter of one percent option (increased to one-half of one percentum on 10–1–93) to fund the OJT/SS Program. Since most of the states are not utilizing OJT/SS legislative set aside funds and appear not to be putting emphasis on training to meet future industry needs, even in the face of expected retirements and new demographic realities, we are making this request to refocus and re-emphasize the OJT program.

In addition, we are requesting this increased funding for the following reasons:

To assist contractors in meeting their minority and women employment goals on federal-aid highway projects as required by the U.S. Department of Labor.

OJT/SS funds are needed to provide legitimate and effective training opportunities for those (minorities and women) seeking non-traditional jobs in the highway construction industry.

To establish OJT/SS demonstration projects to be put in place in urban and rural, union and non-union areas of selected states. The success of the "demos" is expected to heighten interest in use of one-half of one-percentum funds, especially as workforce changes force attention to the need for training.

To work cooperatively with partners, customers, and clients in collaboration with the National Advisory Committee on Apprenticeship to agree to industry-wide standards for skills in apprenticeable occupations in highway construction.

To enhance the effectiveness of the OJT/SS Program as an adjunct to the Administration's Urban Youth Corps initiative which is part of the National and Community Service Act of 1993.

LEGISLATIVE SET-ASIDE

Mr. CARR. Are the Federal Highway Administration and Department of Transportation doing enough in the way of outreach and education with the states to encourage them to use the legislative set-aside?

[The information follows:]

Yes. In a random survey of FHWA regional offices, it was determined that all of the states in these regions have been notified of the legislative set-aside by both regional and division offices. The survey also indicated, that in most instances, the states have elected not to use these funds for OJT/SS.

FHWA is also taking or planning action to encourage states to use the legislative set-aside by:

Currently developing an OJT/SS program order that will promote the use of one-half of one percent option with the States.

In planning for use of the requested funds, FHWA will establish criteria and selection of OJT/SS demonstration projects to be put in place in urban and rural, union and non-union areas of selected states. The results of these efforts will be analyzed, condensed and provided to all states as examples of workable programs. As mentioned in the previous question this should heighten interest in the use of the legislative set-aside.

ON THE JOB TRAINING SUPPORT SERVICES

Mr. CARR. Under DOT's proposed budget, how much would each state receive in OJT/SS funding? Is this amount enough in any one state to provide for a meaningful program?

[The information follows:]

Each state would not be receiving a set amount of funds, but funding would be based on need in an area or multi-state region. OJT/SS funding under this request would be based on the acceptance of individual proposals from contractors, state highway agencies, and non-profit organizations who have a proven record of being successful providers of training and supportive services, and whose proposals meet or exceed minimum standards to be established by FHMA. THESE OJT/SS proposals should contain information and give consideration to such items as: urban and rural areas; union and non-union areas; and minority population. Other meaningful programs that would be developed from this request includes:

OJT/SS demonstration projects to be put in place in selected states. The results of these efforts would be analyzed, condensed and shared with all states as examples of workable programs.

The presentation of a series of seminars to selected service providers to outline requirements, ensure consistency in approaches, and to make clear the objectives and expectations, of the program.

The conducting of a series of presentations to contractors and state highway agency personnel on the most effective methods to recruit, hire, train and retain personnel in the highway construction industry.

The development of a promotional/educational program for high school counselors which orients student to job opportunities in the highway construction industry.

The development of an initiative to connect recently released armed service personnel with highway construction, or related experience, to jobs in the industry.

The development of an initiative to involve highway construction unions more directly in the OJT/SS effort.

To continue the effort with representatives of the Bureau of Apprenticeship and Training, the Office of Workplace Learning, the Women's Bureau, the AGC, ARTBA, and ABC, several members of the AFL–CIO, and the National Advisory Committee on Apprenticeship.

Mr. CARR. Typically, how would a state use money provided in this program? For salaries? For outreach?

[The information follows:]

States would use money provided for in this program for both salaries and outreach. Upon authorization, the FHWA will develop OJT/SS Program promotional and educational initiatives based on individual proposals from contractors, state highway agencies (SHAs) and non-profit organizations. From these individual proposals consideration would be given for acceptance based on a state's (or several states) training needs, size of federal-aid program, set asides for special projects, and past performance, if any, of those states using the legislative set-asides. FHWA desires to get its partners and customers involved in developing a diverse, trained workforce to meet the needs of the highway construction industry in the 21st century.

Contracts awarded by FHWA for OJT/SS initiatives would be utilized for both salaries and outreach in promoting and implementing these initiatives. Contracts would be awarded to contractors, SHAs, and non-profit organizations who have a proven record of being successful providers of training and supportive services, and where proposals meet or exceed minimum standards to be established by FHWA.

To ensure equal opportunity, some racial minority groups may require unique outreach approaches because of cultural or language differences. Separate contracts may be awarded specifically designed to address the need of the targeted group.

A supportive service contractor should employ a staff capable of identifying with, communicating with, and being accepted by members of targeted groups. In addition, such staffs should be capable of adequately addressing the concerns unique to women in nontraditional jobs.

SUPPORT FOR TECHNICAL ASSISTANCE PROGRAM TO RUSSIA

Mr. CARR. Another new effort in the 1995 budget proposal is $1,600,000 for support for technical assistance to Russia. What is the statutory authorization for this program?

[The information follows:]

With the enactment of ISTEA Congress provided for the establishment of an International Outreach Program (Section 6003) which permitted FHWA to pursue objectives such as (a) importing innovative concepts and technology from abroad for application in the United States, (b) facilitating the export of U.S. transport-related goods and services globally, and (c) providing technical assistance to developing nations. The authorization suggested a broad scope for international activities but did not provide specific funding levels.

When Congress passed the "Freedom for Russia Act of 1992" which authorized the expenditure of $2.5 billion for a variety of assistance objectives in the Newly Independent States (NIS), the Congress also enacted a provision urging U.S. Government support for "improving the needs of the transportation and telecommunications sector" in the countries of the former Soviet Union (P.L. 102–511, Sec. 201, Paragraph 11). Unfortunately, Congress did not provide a specific authorization for NIS transport sector improvements and the Agency for International Development (AID) has programmed available funding for projects which are only indirectly supportive of transport sector needs. State Department and AID officials have encouraged FHWA officials to seek funding from domestic resources to complement limited funding under the foreign assistance appropriations. AID's mandate under current and proposed foreign assistance authorizations deemphasizes funding support for capital projects and offers no support for transport sector reforms and transport infrastructure development in the NIS or elsewhere.

TECHNICAL ASSISTANCE TO RUSSIAN GOVERNMENT

Mr. CARR. Has the Russian Government formally requested technical assistance for the United States concerning highways and road infrastructure?

[The information follows:]

The FHWA program of technical assistance was developed in close cooperation with the World Bank's program of lending funds to the Russian Government for the purposes of rehabilitating the roads which are deteriorating from the heavier axle load of Western European trucks. Due to the size and complexity of Russia and its government, the World Bank felt it would be advantageous for the FHWA to be a partner in this project. Prior to the World Bank's involvement, the FHWA Administrator has been visited by his Russian counterpart, who was visiting the U.S. at the invitation of the 3M Company. At that time, the FHWA was asked to send experts and material to Russia, but until the World Bank funding came into play, it was difficult for the FHWA to feel justified in entering into a program with the Russians (due to the paucity of resources both at FHWA and in Russia). This changed, however, and the FHWA feels that its small amount of funding will be leveraged through the use of a portion of the $300 million which the Russians are borrowing. Additionally, the road rehabilitation projects which will be forthcoming under the loan will provide funds for the actual purchase of U.S. goods and services.

SUPPORT FOR TECHNICAL ASSISTANCE PROGRAM FOR RUSSIA

Mr. CARR. For several years, the budget of the FHWA has included an element for support of international transportation activities, which doubles in the 1995 request for $800,000. Why can't Russian needs be addressed through this vehicle?

[The information follows:]

Previous appropriations in support of FHWA activities barely covered the operating expenses of the Office of International Programs. With the ISTEA mandate to establish a comprehensive "International Outreach Program" the available resources are clearly insufficient to meet major new program initiatives in various parts of the world.

Mr. CARR. Why is a separate program needed for Russia?

[The information follows:]

The Russian support program is different from other international activities in that it is part of a multiyear commitment to a trilateral agreement between the Russian Ministry of Transport's Federal Highway Department, the World Bank, and FHWA. The U.S. contribution of staff resources and other in-kind services, amounts to $5 million, over a 4 year period. This would cover the minimum initial requirements of the technical assistance element for this first $300 million loan by World Bank for road rehabilitation and maintenance in Russia. The Russian Government contributed the equivalent of $35 million to the project for a total project value of

$340 million. The U.S. commitment to the project was made subject to the congressional appropriations of funds. The commitment was made prior to and finalized during the loan negotiations in November 1993, and with the realization that FHWA involvement in the project would leverage U.S. private sector participation in the implementation of the project against sharp competition for European government backed firms. The Russian Federal Highway Department requested FHWA guidance with the development and implementation of a comprehensive institutional reform agenda mainly in view of the U.S. federal structure which the Russians are committed to follow with the recent adoption of their new constitution.

Mr. CARR. If there is to be separate program of technical assistance for Russia, why not also have one for China, Ukraine, and other countries around the globe with special highway and infrastructure requirements.

[The information follows:]

The Technical Assistance Program for Russia's surface transport system is viewed as only part of the U.S. Government's overall support for the emerging economic of the former Soviet Union. We expect to be involved in aiding the institutional reform processes in other countries of the region and are in contact with officials from Belarus, Ukraine, Kazakhstan, Kyrgyztan, and the Baltic States. It is not certain at this time whether our support will be provided thorough (1) a trilateral agreement in the context of loans provided by the World Bank or the European Bank for Reconstruction and Development, (2) a direct bilateral cooperative arrangement between the respective technical agencies or (3) as a team member of U.S. companies bidding on loan-funded projects against foreign government backed firms. We do not have plans at this time, nor have we received any request for assistance from the People's Republic of China. We recognize the significance needs for road system improvements in most of the developing countries throughout the world. We expect to be responsive to the DOT Secretary's recently announced strategic plan, which outlines a series of goals and objectives, including "the identification and development of global transportation corridor" and "the promotion of U.S. transport-related goods and services throughout the world," and others with significant international implications. We are also cognizant for the increased globalization of the U.S. economy and believe that we must be responsive to requests for assistance from foreign governments in meeting the mobility needs of U.S. owned transnational corporation wherever they are located. U.S. transnational corporation, with significant investments in the Newly Independently States (NIS), e.g., Caterpillar.

Mr. CARR. Is this activity viewed as an open ended operation continuing for years or do you envision a finite amount of money for a set period of years?

[The information follows:]

The initial commitment to the Russian Ministry of Transport's Federal Highway Department (RMOT/FHD) is limited to $5 million over a 4-year period to finance part of the technical assistance components of the first $300 million World Bank loan, negotiated with the respective government's in November 1993 and approved by the World Bank's Board of Directors in February 1994.

Mr. CARR. What do you assume for this effort in the out-years?

[The information follows:]

The World Bank expects to provides additional loans for a nationwide road and bridge rehabilitation, reconstruction, and repair efforts just to maintain the existing infrastructure. USDOT/FHWA in cooperation with the World Bank and the RMOT/FHD has outlined the scope of a comprehensive multi-year technical assistance effort, which may be implemented partly in the context of subsequent loan and grant agreements.

The implementation of the trilateral or bilateral technical assistance program for Russia and possibly for the other states of former Soviet Union, would involve technical knowledge transfers and personnel exchanges at various levels of government, i.e., federal, state (oblast) and local transport agencies in the United States and Russia, e.g., state, and local DOT's AASHTO, TRB, et al., as well as between U.S. and Russia transport-related industry associations, e.g., the American Road and Transport Builders Association (ARTBA), the American Consulting Engineer Council (ACEC), American Trucking Association (ATA) and others. The program will be defined in detail in cooperation with our U.S. private sector partners, who have already expressed a significant interest in participating in the technical assistance effort as a cost-effective approach to facilitating export and/or investment initiatives.

Mr. CARR. How would the funding actually be spent?
[The information follows:]

The Russian Technical Assistance Program has two expenditure categories which relate to the program's two major components. The first expenditure category is for management support for the project implementation unit (PIU), established to disburse IBRD loan funds under competitive procurement procedures. FHWA expects to station 4 experts in Moscow (one FHWA/FTE plus three contract personnel) on a full-time basis for the duration of the project, and dispatch a number of FHWA officials on short-term assignments to assist their Russian counterparts in capacity building measures. Specifically, expenditures for long-term assignments include salaries and benefits, housing, transports, other allowance according to regulations of U.S. Department of State. for short-term assignments, expenditures include transportation, per diem, and incidental costs according to international travel regulations of USDOT/FHWA.

The second expenditure category is for training support through "Twinning Arrangements," i.e., contracts with U.S. industry associations, U.S. state and local Departments of Transportation/Highway Agencies, professional organizations, and academic institutions, for a period of 3 years, including periodic observational study tour to the United States for senior Russian officials at the federal, state, and local levels. Specifically, expenditures for U.S. project managers and assistants include salaries and benefits, travel and per diem, procurement and translation of documents. For Russian participants, the expenditures include travel and per diem, stipends and tuition payments, materials and supplies to establish effective outreach efforts.

While the cost for the PIU management support effort is constrained by the $5 million commitment, the cost for the various training activities under training arrangements and personnel exchanges has not yet been defined, but could range from $10 million to $50 million over a 5-year authorization period. The cost effectiveness of such an expenditure will be measured in terms of the value of generated exports of U.S. goods and services and other intangible benefits to the United States.

Mr. CARR. Would it pay for the expenses of Russian visiting this country?
[The information follows:]

Russian officials visiting the U.S. under the auspices of the Russian Technical Assistance Program would be eligible for travel and per diem expenses.

Mr. CARR. For materials? For training? For FHWA personnel assigned to Moscow? Please provide details for the record.
[The information follows:]

Under the auspices of the Russian Technical Assistance Program, material and supplies as well as training costs are reimbursable expenditures. FHWA employees assigned to Moscow would receive travel and per diem expenses, as well as regular salaries and benefits.

MOTOR CARRIER PERFORMANCE GOALS

Mr. CARR. Secretary Peña has established the promotion of safe transportation as a high priority in the Department's newly released strategic plan. Some of the operating modes have established specific and quantifiable safety performance objectives that they hope to achieve. Has the Office of Motor Carriers established any specific numerical safety objectives?
[The information follows:]

The Federal Highway Administration is updating its Strategic Plan—and it will fully support Secretary Peña's strategic plan for the entire Department. Both the FHWA plan, and the detailed plan the Office of Motor Carriers is developing, will continue to emphasize safety as a primary goal and will include specific objectives to achieve for that goal.

The current strategic plan sets a goal of reducing highway fatalities by 5 percent. Other current numerical safety objectives include: improvement in the safety fitness ratings of 70 percent of identified high-risk carriers, can complete uploading by all States of truck and bus accidents based on the National Governor's Association definition of accidents and their total 22 reporting elements.

NATIONAL HIGHWAY FATALITY RATE

Mr. CARR. How will the Office of Motor Carriers contribute to the overall objective in the FHWA 1994 Strategic Plan to reduce the national highway fatality rate by an average of 5 percent annually through 1996?

[The information follows:]

The Office of Motor Carriers is developing a new strategic plan. It includes safety as a primary goals as well as a number of other goals and objectives that contribute to reducing the highway fatality rate. Our overall vision is to work together with the States and our other partners to identify and correct areas of greatest risk and to encourage use of new technologies to improve safety.

Within our safety goal, we will focus on: Identifiyig and improving the safety performance of high risk carriers and drivers; providing accident countermeasure information to all motor carriers we visit; and enhancing research and analysis of commercial vehicle and driver issues and data.

We are also assisting the states as they develop and implement the comprehensive safety management systems required by the ISTEA; working with NHTSA and other agencies to address roadway, vehicle and highway safety programs, such as the Washington Beltway Area Highway Safety Initiative; and developing and piloting IVHS applications for commercial vehicle operations.

INSPECTOR GENERAL REPORT ON NOISE WALLS

Mr. CARR. A report issued by the Inspector General (No. R3–FH–3–007), identified approximately $12.6 million in federal funds used on sections of noise walls on five interstate projects determined not to be justified. The IG recommended that the FHWA request credits for the federal money spent on ineligible projects. the FHWA has refused. Has the FHWA reconsidered its position on this audit report?

[The information follows:]

Yes. The FHWA responded in writing to the IG on November 1, 1993.

Mr. CARR. How can the FHWA justify the expenditure of federal funds on ineligible activities and then not agree to seek credits after the matter is raised by the IG?

[The information follows:]

The FHWA does not agree that the items noted by the IG were ineligible for participation with federal-aid funds. The FHWA position on this matter is fully explained in written responses to the IG dated June 4, 1993, and November 1, 1993. (See attached for a summary of IG findings and recommendations and a summary of FHWA's response.)

SUBJECT: OIL AUDIT OF REGION 3 HIGHWAY TRAFFIC NOISE PROGRAM

Region 3 OIG sent a draft report on an audit of the highway traffic noise program to FHWA Region 3 on March 19. The findings were the following:

SHAs had adequately identified both existing and anticipated noise sensitive devlopments along highway projects.

SHAs had initiated or completed planning for noise abatement.

Noise impacts were measurably reduced or eliminated at locations requiring abatement.

FHWA Region 3 needs to improve its review and approval of Federally-funded highway projects to ensure that sites for noise abatement meet established eligibility and cost criteria.

The OIG's draft report contained the following recommendations:

1. Ensure Pennsylvania establishes a policy defining reasonableness and follows written guidelines for determining when the cost of noise abatement exceeds their

benefits considering the number of qualified receptors protected and the frequency of human use.

2. Withhold federal participation for the $698,000 noise wall Maryland plans to build on I–595.

3. Request credits from Virginia and Pennsylvania for the federal funds spent on ineligible walls (total cost $1.004 million, federal share $903.600).

4. Do not permit federal funding of future noise abatement projects where state noise abatement policies are not followed.

FHWA Region 3 responded to the IG draft report on June 4. The response agreed with recommendations 1 and 4; it provided specific detailed additional information that confirmed the appropriate use of federal-aid highway funds for the construction of the walls questioned in recommendations 2 & 3. FHWA's response indicated the following:

PennDOT has been asked to better define the cost reasonableness of noise abatement and to include a cost/residence index in written guidance.

The FEIS for the I–595 project in Maryland contains a clear commitment to construct the questioned noise wall. The commitment to build the wall is consistent with FHWA eligibility criteria, the FHWA believes that federal-aid funds may participate in the construction.

The wall along I–279 in Pennsylvania protects the Mt. Nazareth Academy, a convent/convalescent home for retired nuns. It was a compromise arrived at during right-of-way negotiations and was erected for general environmental (not noise) mitigation purposes. FHWA does not agree to request a credit for the $375,000 cost of this wall.

A noise barrier to protect the Langley Club and Eagle Rock community along I–495 in Virginia was determined not to be cost-effective. However, VDOT was able to provide some limited noise reduction benefits by increasing the height of an already planned concrete safety barrier and retaining wall combination. FHWA considers this to be an excellent solution to a situation where a full noise barrier could not have been justified and does not agree to request a credit for construction of the wall.

The wall protecting the McLean Bible Church along I–495 in Virginia provides noise mitigation for 41 residential properties in addition to the church property. FHWA believes that the church was appropriately considered with the residence as an extenuating circumstance in accordance with established VDOT policy and does not agree to request a credit for construction of the wall.

FHWA does not permit federal funding of noise abatement project where state noise abatement policies are not followed.

Mr. CARR. What specific actions has the FHWA taken to ensure no reoccurrence of this type of situation?

[The information follows:]

The FHWA responded in writing on June 4 and November 1, 1993, to the IG findings and recommendations. The FHWA requested PennDOT to better define the cost reasonableness of noise abatement and to include a cost/residence index in written guidance. In addition, the FHWA will not permit federal funding of noise abatement projects where state noise abatement policies are not followed. However, regarding the expenditure of federal funds on ineligible activities, as noted in our June 4 response to the IG, the FHWA believes that all expenditures were consistent with FHWA eligibility criteria.

STATUS OF CERTAIN STATE HIGHWAYS

Mr. CARR. A recent press report in the February 21, 1994 issue of Transport Topics cited the Colorado Department of Transportation as having indicated that nearly two-thirds of that state's highways are in poor condition, and that through 2015, current revenue sources will satisfy only $4 or $5 billion of the estimated need of $11 billion. Do you think this is a true picture of the situation facing the Colorado highway system?

[The information follows:]

FHWA does not track the status of individual state revenue situations; therefore I cannot address the circumstances in Colorado. However, the statistics you cite can be weighed against national averages for comparison, if Colorado DOT's number and assumptions are identical with those of FHWA. Currently, the national annualized cost to maintain 1991 highways conditions is $47.2 billion; the national 1991 capital outlays were $26.4 billion. Therefore the ratio of 55.9 percent describes the national annual shortfall of expenditure to needs. In Colorado's case the ratio is about 40 percent. This would indicate that Colorado has a considerably lower ratio of expenditures to needs the national average.

Mr. CARR. Are there other states in similar or worse condition?
[The information follows:]

Again, FHWA does not compile such information.

Mr. CARR. The article also says that while federal funds used to percent 55 percent of the Colorado's highway budget, in 1995 the percentage drops to 40 percent. For the record, provide a table indicating for 1994 and 1995 the percentage of each state's highways budget represented by federal funds.
[The information follows:]

We cannot provide the requested table since the state budget data are not available.

TRAFFIC CONGESTION

Mr. CARR. Traffic congestion, particularly in urban areas, degrades air quality, jeopardizes safety, impedes efforts to conserve energy, and results in delays that affect the quality of life. Its adverse effects on the local and national economy are estimated to cost $40 billion annually. While adding more road capacity can reduce traffic congestion, states and localities can also reduce congestion by making better use of existing roads through the use of effective traffic control signal systems. Property operating systems can mitigate congestion, and reduce accidents, fuel consumption, air pollutants and travel time. Traffic control signal systems are eligible (under ISTEA) for capital and operating costs.

Does the Federal Highway Administration monitor those urban areas that do not have computerized traffic signal systems?
[The information follows:]

The Federal Highway Administration does not routinely monitor urban areas regarding the status of their computerized traffic signal systems; but through performance of normal federal-aid program/project duties, FHWA is aware of system capabilities. In addition, FHWA, from time to time, will support efforts which identify and inventory traffic management capabilities in urban areas. For example, in 1991, FHWA, supported a "North American Traffic Signal Inventory" through the Institute of Transportation Engineers, which provided the most comprehensive inventory of traffic signal systems and signalized intersections ever performed. FHWA also provides assistance to these jurisdictions in congestion mitigation and improvement in air quality.

Mr. CARR. How many of these are there?
[The information follows:]

With few exceptions, according to the Institute of Transportation Engineers' inventory, most urbanized areas (50,000 population and above) have some form of a signal system that is centrally controlled. Among the notable exceptions, Chicago, Pittsburgh and Philadelphia are presently at various stages in the acquisition of a computerized signal system. In some larger metropolitan areas, there are computerized signal systems in several jurisdictions within the metropolitan area that are individually controlled.

Mr. CARR. What is the FHWA doing to encourage or assist these areas in putting state-of-the-art systems in place?
[The information follows:]

FHWA continues to emphasize the value of computerized signal systems through technical assistance, training courses, conferences and symposia. A mobile exhibit

(Demonstration Project 93 traffic control equipment and software) is now touring the United States to provide illustrations and training on the benefits of computerized signal systems. It currently has a backlog of over 100 requests for presentations.This project is envisioned to last at least three more years and will include a minimum of one stop in each state in the country.

The FHWA is assisting areas in putting in state-of-the-art systems by encouraging the use of ISTEA funds for urban signal applications and traffic management centers. Traffic management centers play a key role in the success of urbanized signal systems. A recent survey through our field offices indicated that there are several examples where ISTEA funds are being used or planned for traffic management centers and signal systems:

Upgrade of Existing Traffic Management Centers:

INFORM, Long Island, NY—STP Funding, Chicago, IL—CMAQ Funding, Detroit, MI—CMAQ Funding, and Minneapolis/St. Paul, MN—CMAQ Funding.

New Traffic Management Centers (Planning and/or Construction):

Milwaukee, WI—CMAQ Funding, Cincinnati, OH—CMAQ Funding, Houston, TX—CMAQ or NHS Funding, and Phoenix, AZ—Two-Year Operational Provision.

Future Traffic Management Centers:

Toledo, OH—CMAQ Funding & STP Funding, San Antonio, TX—CMAQ or NHS Funding, and El Paso, TX—Category Presently Undecided.

Mr. CARR. Several studies done by FHWA as well as outside organizations, such as the Institute of Transportation Engineers, indicate that many cities have systems that are not properly operated and maintained due in part to the inadequate state and local funding. Does FHWA tract the condition of traffic control signal systems in urban areas? In general, what is that condition?

[The information follows:]

FHWA does not routinely monitor the status of traffic control signal systems in urban areas, but the agency is aware of system capabilities through normal federal-aid program/project involvement and through the support of periodic special studies. A majority of the computerized signal systems in urban areas are over 15 years old. Therefore, the hardware is obsolete and in need of replacement. With the advent of advanced computer technology, most of the existing mini computer-based systems can be upgraded to super micro or micro computer-based system. Unfortunately, the 1991 findings by FHWA referred to in the question still exist in terms of inadequate funding for operation and maintenance. Though intended to help with this problem, few states and local governments are taking full advantage of the provision of the ISTEA which allows some limited use of funding for operating costs. The most frequently stated reason is that infrastructure rehabilitation and repair are a higher priority. However, we are seeing a major increase in capital acquisitions for signal systems, suggesting that systems are being installed and/or upgraded. Therefore, FHWA will continue to give the operating and maintenance problem attention, with particular attention to technical assistance and training to signal system operators.

TRAFFIC CONTROL SIGNAL SYSTEMS

Mr. CARR. What initiatives does FHWA have under way to help cities optimize the benefits of their traffic control signal systems?

[The information follows:]

The FHWA is providing extensive technical assistance and training to state and local agencies on cost-effective traffic congestion management techniques such as signal systems. Through technology transfer efforts, the FHWA actively promotes awareness of the effectiveness of signal timing. Demonstration projects are being developed to acquaint urbanized areas with the application of new procedures and technology, providing practitioners with hands-on experience using selected hardware, software, techniques, etc. Currently, two of the most successful demonstration projects are (a) Demonstration Project No. 86 on incident management, and (b) Demonstration Project No. 93 on traffic control equipment and software. The incident management demonstration is significant in that if an incident management program is to be successful, there must be interjurisdictional coordination between the localities and the entities operating the signal systems in case there is a need for route diversion. Demonstration project No. 93 explains the various hardware and software that improve signal timing practices. A major environmental benefit is that properly timed signals may decrease the number of emissions from idling vehicles.

Mr. CARR. Please explain the extent that FHWA is training its highway engineers, both in headquarters and in the field, in traffic management technologies in order to be of assistance to states and localities.

[The information follows:]

For one thing, the FHWA offers a traffic operations core curriculum of training for its engineers. The core curriculum includes traffic management training in: highway capacity and quality of flow; traffic control software and signalization; FHWA traffic operations and IVHS; and The Manual on Uniform Traffic Control Devices. FHWA also has entry level positions for new engineer hires which provide 18 months formal training in traffic management technologies for graduates with Masters degrees and 24 months training for Bachelors degrees. In addition FHWA offers its engineers specialty training in topics such as traffic management strategies, high occupancy vehicle systems, freeway surveillance and control. IVHS, and travel demand management. This training is designed to provide the skill level needed by FHWA staff in order to provide technical assistance needed. In the past year, more than 100 person-classes have been taken by our engineers in the traffic management/signals areas.

Mr. CARR. How important are properly operating traffic control signal systems to the deployment of IVHS systems such as Advanced Traffic Management and Advanced Traveler Information which rely on real-time traffic information?

[The information follows:]

The foundation of a typical Intelligent Vehicle Highway System consists of a computerized signal and freeway control system. These systems collect data, manage traffic control devices and disseminate information to other IVHS user services. Consequently, for IVHS to have maximum positive effect, these systems must operate optimally. In fact, today's traffic signal software/hardware is able to receive information from detectors (infrared, inductive loop, video, etc.), relay this information to a traffic management center, input the information into software, and adjust the signal timing in a matter of seconds. Therefore, the key elements to the success of IVHS are well maintained and operated traffic control systems.

Mr. CARR. Are our cities' traffic control signal systems technically sufficient for use with the more advanced Intelligent Vehicle/Highway Systems?

[The information follows:]

One of the challenges we are faced with is to develop an IVHS systems architecture that will allow participation in the benefits of IVHS by as much of the existing traffic control systems technology as possible. For example, many cities have signal systems controlled by main frame computers. Others are personal computer (PC) based. And most are capable of handling current IVHS technologies appropriate for signal systems. However, advanced IVHS technologies will likely require faster computing power, which would require some upgrades. In addition, many of the existing systems will need to increase their traffic data collection and analysis capabilities in order to use advanced IVHS technologies. We are encouraging cities and states through FHWA's IVHS early deployment planning grant program to examine these needs and plan for the improvements needed in their signal systems to accommodate future traffic management needs.

Mr. CARR. Does FHWA anticipate changes in the level of funding provided to traffic control signal systems?

[The information follows:]

Yes. For example, ISTEA, with its flexibility provisions and emphasis on eligible traffic operational improvements, is proposed to be fully funded. Use of federal funds for traffic control signal systems is at the discretion of the states and local jurisdictions receiving the funds, but general trends indicate that funding for these activities is increasing.

Mr. CARR. Please provide the amount of federal highway funding the states used for traffic control signal systems in fiscal years 1992, 1993, and 1994 to date.

[The information follows:]

In 1992 the States obligated $288,743,000 in federal highway funds from all categories for traffic signal systems projects. In 1993, the amount was $502,764,000, a 75 percent increase. Data for 1994 are not available at this time. We are encouraged by the increased funding for 1993. This is the right direction for both current and future IVHS deployment strategies.

CONGESTION PRICING PROGRAMS

Mr. CARR. ISTEA authorizes the Department of Transportation to enter into up to five cooperative agreements with state or local governments or public authorities to establish, maintain and monitor congestion pricing projects. Has DOT approved the five congestion pricing programs allowed in the ISTEA?

[The information follows:]

We have not yet approved the five congestion pricing projects under the pilot program. In response to our first solicitation, we received proposals for participation in the pilot program from 16 urban areas in 9 states. Only one, the Metropolitan Transportation Commission's (MTC) proposal to implement variable tolls and make transit improvements on the San Francisco-Oakland Bay Bridge, appears to be close to implementing a congestion pricing project designed to restrain traffic demand. It has been named as the pilot program's first participant. We subsequently extended the solicitation for an additional four months to allow unsuccessful candidates time to enhance their proposals, as well as to give others the opportunity to develop new proposals. We received four proposals in response to this solicitation, none of which was far enough along to meet the criteria as an operating pilot project. We do believe, however, that some of the areas that submitted proposals hold promise for implementing congestion pricing projects in the future. We plan to work with some of these areas to support the kinds of public information and other pre-project activities that must precede implementation of congestion pricing.

Mr. CARR. What have been the obstacles in identifying projects to participate in congestion pricing projects?

[The information follows:]

The obstacles to identifying congestion pricing projects are the underlying legal and political obstacles to getting congestion pricing accepted at the local level. Charging a price for the use of a previously free road during congested periods is not a popular concept. If the potential efficiency advantages of congestion pricing are to be realized, the concept must be introduced gradually as part of a process that includes substantial public participation in the design and evaluation of potential projects. To promote the kinds of pre-project activities we believe are necessary, we have revised our program strategy to allow a two-pronged approach to promoting implementation of congestion pricing projects. This strategy will use a small amount of pilot program funds to nurture the development of market pricing experiments in areas showing the most promise for eventually implementing congestion pricing projects. At the same time, we will hold open the four remaining pilot program slots until one or more projects is ready for implementation. Emphasis in the pre-project phase will be placed on the development of public-involvement programs and on activities designed to overcome institutional barriers to congestion pricing. We expect to initiate agreements with additional program applicants over the next several months to support necessary pre-project activities.

Mr. CARR. What barriers have the projects had to face getting their plans implemented?

[The information follows:]

Beyond the need for generating local support for congestion pricing, there are a number of legal and institutional issues that must be addressed if potential projects are to reach the point of implementation. Even the project that was judged to be the furthest along in generating local support for congestion pricing, the Bay Area project in California, has several implementation barriers to overcome before congestion pricing could actually be put into effect, including obtaining approval of the state legislature. Past attempts at implementing congestion pricing have been unsuccessful because of actual or anticipated public opposition to paying congestion charges, perceived adverse effects on local business and low-income groups, doubts that the concept is technically feasible, or the belief that congestion levels were not serious enough to warrant a new way of charging for road use.

Mr. CARR. What initiatives would help improve the feasibility of congestion pricing programs?

[The information follows:]

Successful implementation of congestion pricing pilot projects will require a substantial effort to explain the objectives of congestion pricing, ensure public participation in the development of projects, overcome legal and institutional barriers, and improve estimates of congestion pricing's potential effects. The time from initiation of pre-project activities to implementation of pricing may be stretched out over a number of years. Concern with equity must be a central focus of implementation efforts, and prime consideration should be given to making preliminary estimates of the project's effects, and presenting congestion pricing as part of a package that may include transportation or other improvements that will benefit those who are subject to the pricing strategy. The planned use of revenues from peak-period tolls can be a critical part of that package.

STREAMLINING ENVIRONMENTAL REVIEWS

Mr. CARR. Since 1985, the Federal Highway Administration and other federal and state agencies have attempted to expedite environmental review and permitting for highway projects. In 1988 several agencies published guidance, known as the "Red Book," for integrating the National Environmental Policy Act (NEPA) and section 404 (wetlands permit reviews). Currently all FHWA regions are developing procedures to integrate NEPA and section 404 reviews.

How long does it take to complete NEPA and section 404 (Wetland Permit) reviews? What is FHWA's goal for how long it should take to complete such reviews? has FHWA followed the Council on Environmental Quality recommendations to establish time limits for the environmental review processes?

[The information follows:]

The NEPA process alone for major projects typically will take 2–3 years. For minor projects (which account for 95 percent of all highway projects) the NEPA process takes something less than 1 year.

The additional time needed for the wetland permit process usually will add approximately 2 months to the NEPA time if all section 404 related issues have been sufficiently addressed in the NEPA process.

FHWA's goal is to integrate the section 404 permit and the NEPA processes to address the common elements of both processes. This will result in both processes being completed simultaneously rather than being addressed on two separate occasions taking a longer time period.

Yes, the FHWA has followed the CEQ recommendations to establish time limits. They are included in the FHWA regulations for implementing the requirements of NEPA and CEQ (23 CFR 771). The regulations which underwent the rulemaking process, include time limits for completion of review of specified portions of the project development (environmental documentation) process. They also include requirements for utilizing the categorical exclusion process in an effort to reduce not only time, but the paperwork associated with the more complex environmental impact statement.

ENVIRONMENTAL REVIEW DELAYS

Mr. CARR. At what point in the NEPA and/or section 404 permit processes does FHWA consider a project to be delayed? Has FHWA ever performed an in-depth study to determine the reasons why environmental reviews delay projects?

What are the principal causes of delays, and how significant are wetlands in delaying projects?

[The information follows:]

The FHWA considers a project to be delayed when the project development schedule (developed with the involvement of the permitting agency) suffers considerably.

It should not be assumed that the environmental review delays a project. The environmental review is rather a tool to be used to satisfy the requirements of the objectives of NEPA and the CEQ regulations and is an important part of the project.

The FHWA has no evidence to indicate that, except in relatively few cases, the environmental process, when properly implemented causes significant delays in processing projects and thus could delay obligation opportunities.

No specific nationwide study has been conducted by FHWA to gather statistics in this area. However, the GAO is currently planning to collect data for a similar type study this calendar year. (Surveys to be sent out to 20 states on 91 projects.) The focus is primarily to determine if there is data to support the contention that there are delays associated with the section 404 permit process and environmental impact statements.

It has come to our attention that a few cases of delays have been identified which affect project processing due to the requirements of the conformity rule. There may, in fact, be more delays in the future as additional conformity requirements kick in.

Concerning the broader issue of whether the effect of environmental analyses, the wetlands and permit processes, and NEPA type issues cause significant delays in obligations, FHWA does not agree with this overall assessment.

While effective coordination with affected agencies takes time, there is also clear evidence that where there is no effective coordination with Federal, state and local agencies, projects are not only delayed for extended periods of time, but often are shelved or killed due to conflicts and a lack of support.

The principal causes of delays are differences in resource agency goals and objectives, poor coordination and communication, and controversy (which is normally not environmentally based). Wetlands can be an issue because they are important resources. Other resources such as threatened and endangered species, historic resources, or socio-economic resources are also important resources which can delay a project. Wetland issues are perhaps the easiest for project opponents to utilize because of the permit aspects associated with section 404 process. Those in opposition to a project may not necessarily be interested in the protection of a particular resource, but may use the regulations as tools to oppose the project.

RED BOOK

Mr. CARR. Has the Red Book been effective in expediting environmental reviews?

[The information follows:]

Considerable time and effort has been expended by FHWA as our resource agency partners to establish processes which will help effectively address environmental issue early in the planning and project development process (i.e., The Red Book concept agreements, Merger of NEPA and Section 404, interagency agreements, cooperating agency guidance, etc.). With adequate resources and effort these measures have shown that they can actually assist in moving projects.

The Red Book is officially cited as reflecting the agency policy of the DOT, the COE, and the EPA regarding interagency coordination. This official endorsement by the agencies has helped to promote the merger philosophy. It has also assisted the FHWA regions in developing individual merger agreements with associated OCE offices.

NEPA AND SECTION 404 INTEGRATION

Mr. CARR. What does FHWA expect to gain from its current initiatives to integrate NEPA and section 404 requirements? What performance measure will FHWA use to determine whether the integrated programs are successful?

[The information follows:]

In merging the NEPA and section 404 processes, FHWA expects to eliminate duplication which would occur by separate processes and build a greater trust among the resources agencies. The use of concurrent/shared decisionmaking will result in agreement on alternative choices early in the process and assurance that issues pertinent to the 404 permit will be addressed in the final environmental impact statement.

The measure will be the time required to secure the section 404 permit. If the permit is obtained in a faster time than would normally be expected under similar projects in the past, then it could be concluded that the merger concepts are successful.

Mr. CARR. Has FHWA determined whether federal and state agencies have sufficient resources to implement the integrated programs successfully?

[The information follows:]

Adopting the procedures advocated in the merger concept will not require any more staff resources than is required under existing operations. The merger will only require that the involvement from the resource agencies be earlier in the development of the project. Utilization of the merger concepts with joint decisionmaking should actually reduce the load on the resources.

Mr. CARR. In addition to integrating NEPA and section 404 reviews, what other methods is FHWA studying or implementing which will streamline environmental reviews?

[The information follows:]

The section 404 requirements are only one of several requirements that must be satisfied in developing a project.

The FHWA has been encouraging early coordination with all resource agencies and local jurisdictions in the planning phases of project development. This early involvement will facilitate project direction and focus.

The FHWA also has developed guidance on the use of programmatic environmental documentation to minimize documentation and processing time.

The FHWA is encouraging the use of computerization techniques to facilitate reviews.

FHWA's focus on more early and effective public involvement will help to reduce controversy, thus saving time.

The FHWA is also reviewing the project development process overall to see what can be done to make the review process more efficient.

The FHWA continues to provide project development training to assist the state highway departments in developing their projects and programs.

The FHWA is developing new training courses in response to changes in the environmental and planning regulations.

TRANSPORTATION CONTROL MEASURES

Mr. CARR. Transportation Control Measures (TCMs) are measures designed to encourage alternatives to the single-occupant vehicles. They include measures such as mass transit improvements, carpool programs, and high-occupancy vehicle lanes. Both the Clean Air Act and ISTEA strongly encourage the use of TCMs in areas not meeting federal air quality standards.

Are there some types of TCMs that are more cost-effective than others? What is the Federal Highway Administration doing to promote and encourage such TCMs?

[The information follows:]

The cost-effectiveness of TCMs varies considerably, and is heavily dependent on an areas's specific circumstances. Land use patterns, existing transportation infrastructure, and employment characteristics are all variables which affect a specific TCM's effectiveness at reducing vehicle trips.

Conventional TCMs, such as mass transit improvements, high-occupancy vehicle lanes, and ridesharing programs, are unlikely to have a significant effect on vehicle miles traveled (VMT) growth or on urban air quality. For example, an analysis in the San Francisco area showed a difference of less than one percent in ozone or carbon monoxide emissions attributable to an $11 billion investment in new HOV facilities, new transit lines, and local arterial improvements.

The reasons for this are many: most societal land-use arrangements are fixed, and unresponsive to measures which affect these arrangements at the margins; most TCMs focus on work commute trips, especially those to central cities, which are a relatively small percentage of all trips; the marginal cost of travel by single-occupant vehicle is low for most commuters; and, successful TCMs may generate new trips through "latent demand" phenomena.

In most cases, stringent TCMs which seek to control the demand for vehicle travel, such as congestion pricing, parking fees, and (VMT) charges, appear to have the greatest potential. However, these frequently are controversial and often lack broad public support.

The FHWA has developed, singly and in concert with other federal agencies, materials to assist implementing entities in selecting transportation control measures.

The FHWA worked closely with the Environmental Protection Agency (EPA) in the preparation of the Transportation Control Measure Information Documents, issued in May 1992. These documents survey the extant literature on such measures, and provide implementation guidance.

The FHWA and the Federal Transit Administration are jointly developing transportation demand management technical assistance and guidance materials. The materials include guidance documents to assist both the public and private sectors in implementing cost-effective programs and a microcomputer model to analyze the traffic impacts of potential programs to develop the most effective package of actions. The materials also will include a reference document which presents the experience of available programs and a video to explain the concepts of transportation demand management to upper management in the public and private sectors.

The FHWA is supporting an analysis in California of market-based transportation control measures to reduce travel demand, and expects the results to be usable nationally in evaluations of various strategies.

Together with the EPA, the FHWA has sponsored a study of the cost-effectiveness and pollution reduction potential of transportation control measures. This report, currently underway, should be completed in spring 1994.

Mr. CARR. Statistics from the census and the Nationwide Personal Transportation Survey indicate that Americans have become increasingly dependent on the automobile, and often the single-occupant vehicle, for personal transportation. Is it likely that TCMs will control or reverse this trend?

[The information follows:]

Conventional TCMs have a role to play, providing alternatives to single-occupant vehicles through mass transit, carpooling, and bicycling and pedestrian projects. However, their usefulness in areas without the transportation infrastructure or population density to make such programs popular or cost-effective is uncertain, and is the subject of continuing study by the FHWA and other Federal agencies. This is especially true if the cost of travel is low, and such programs are not developed in connection with pricing strategies.

Mr. CARR. The Clean Air Act mandates one particular TCM—employer-based transportation plans—in the areas of poorest air quality. Employers in the worst ozone nonattainment areas must develop plans for reducing the ratio of vehicles to workers arriving at the workplace. What progress have states and metropolitan planning organizations made in implementing this requirement? Do you think this requirement will reduce vehicle emissions to a meaningful extent?

[The information follows:]

State and metropolitan planning organizations have been providing revised State Implementation Plans to the U.S. Environmental Protection Agency which detail employee commute options (ECO) programs required by the 1990 Clean Air Act Amendments.

Such programs require employers with 100 or more employees at a site to increase the average vehicle occupancy of their employees by 25 percent over a baseline. In essence this means reducing single-occupant vehicle trips through ridesharing, mass transit use, telecommuting, alternative work schedules, or other arrangements.

Such programs are currently underway in California and in Washington State (which only began implementation recently). The experience of the oldest and largest program, Southern California's Regulation XV, is mixed. The program has shown relatively small reductions in commute travel despite high costs, and is under review by the implementing agency.

ECO programs may not achieve the expected results in a cost-effective manner without the adoption of stringent demand management strategies such as congestion pricing or vehicle miles traveled fees. This is because most such programs rely heavily upon conventional transportation control measures.

HIGHWAY GEOMETRIC DESIGN

Mr. CARR. Highway geometric design covers features of the physical layout of the highway including lane width, usable shoulder width, cross slope, curvature, and sight distance which can have an impact upon highway safety. ISTEA provides states increased flexibility in how they design highways. Specifically state standards now govern how non-National Highway System highways are designed. Section 1049 of ISTEA requires the Federal Highway Administration to identify current state standards and determine the necessary of upgrading such standards.

Based on your survey, have any states taken advantage of this new flexibility in the area of highway geometrics?

[The information follows:]

Four states indicated that some geometric design elements on some non-NHS projects will be less than the minimum values specified in AASHTO standards. For example, one state reported that shoulder width on highways with average daily traffic greater than 400 vehicles/day will be 4 feet on non-NHS projects (AASHTO standards require 6 feet). All other states reported they will use the same standards for non-NHS projects as for NHS projects.

Mr. CARR. Are state standards generally lower than federal standards?

[The information follows:]

No.

Mr. CARR. Do liability issues constrain states ability to take advantage of this new flexibility?

[The information follows:]

We suspect this is true but have no way to confirm it.

Mr. CARR. By allowing states this flexibility is the level of safety on our highways reduced?

[The information follows:]

Yes, if the states decided to take advantage of the flexibility and drastically reduced standards. Because of liability we do not expect this to happen.

SEISMIC VULNERABILITY OF BRIDGES

Mr. CARR. In January 1992, the General Accounting Office reported that 31 states have bridges that are at risk from moderate to high-intensity earthquakes. Yet, the seismic vulnerability of the nation's bridges—including bridges along routes vital for national defense, commerce, or emergency response—is largely unknown. Although the Federal Highway Administration requires states to report annually in the overall structural condition of bridges, they are not required to identify bridges subject to seismic forces.

What information is now available on the number of bridges vulnerable to moderate to high-intensity earthquakes?

[The information follows:]

As of March 1993, 24 of the 32 states and Puerto Rico with moderate to high seismic risk reported that they have completed screening and evaluation to identify bridges which are candidates for retrofitting. The number of bridges so designated will not be available until later this year.

Mr. CARR. To what extent have states retrofitted bridges vulnerable to earthquakes?

[The information follows:]

A total of 13 states report that bridge retrofitting is underway or completed.

RETROFITTING BRIDGES

Mr. CARR. What factors at the federal level have impeded as well as facilitated California's efforts to retrofit bridges vulnerable to earthquakes?

[The information follows:]

To facilitate the seismic retrofitting of bridges, Highway Bridge Replacement and Rehabilitation Program (HBRRP) funds as well as Surface Transportation Program (STP) funds may be used for the work. Until the recent action by Congress, HBRRP funds could only be used on deficient bridges. The passage of S. 1789, allows California and other States to meet their critical seismic retrofitting needs using HBRRP funds on any bridge on public roads without adversely affecting the formula for apportioning HBRRP funds to the States.

The provision in the 1991 ISTEA permitting 40 percent of HBRRP funds to be transferred out of the bridge program, may be considered an impediment to retrofitting bridges vulnerable to earthquakes. The transferred funds lose bridge designation and, although may be used for retrofitting, generally are used for other purposes.

All levels of the U.S. Department of Transportation and the Federal Highway Administration have been working closely with California and other states to promote and support the retrofitting programs of the states. The current seismic bridge design provisions of the American Association of State Highway and Transportation Official standard specifications for highway bridges are the direct result of FHWA sponsored research. An ongoing major seismic research program funded by the ISTEA legislation will soon result in updated seismic design and retrofitting specifications and improved methodology.

Mr. CARR. What factors at the state and local level impede the identification and retrofit of bridges vulnerable to earthquakes?

[The information follows:]

The principal impediment is the use of available funds for other public safety programs. With the constant broad range of demands for bridge and highway improvements including operational safety improvements, the states and local governments are hard pressed to earmark large portions of their budgets to forestall or guard against a potential event which most of their decisionmakers have never experienced in their lifetimes and never expect to experience in the future.

Mr. CARR. Does FHWA plan to revise the National Bridge Inventory to capture data on the number of bridges vulnerable to earthquakes?

[The information follows:]

No, the capturing of that data is not necessary to administer the nation's bridge program. Only deficient bridges and the nature of their deficiency needs to be tracked in the National Bridge Inventory. The number of bridges vulnerable to earthquakes can be readily obtained from the screening, evaluation and retrofit program lists that the individual states are conducting. Each state will have a list and the current status of their bridge population subject to moderate or high seismic risk.

FEDERAL BRIDGE FUNDS

Mr. CARR. Federal bridge funds are allocated based on the number of deficient bridges, but no allowance is made for seismic vulnerability. Please explain the rationale for seismic vulnerability being omitted as a factor in allocating federal funds for deficient bridges. Also, what is FHWA's position on recognizing seismic vulnerability in the future as part of the bridge allocation formula?

[The information follows:]

The basis for the legislatively established current method of apportioning Highway Bridge Replacement and Rehabilitation Program (HBRRP) funds is each state's relative cost to replace or rehabilitate the total square footage of existing deficient bridges in the state. Deficiencies are physical site conditions which currently affect the load carrying capacity of a bridge, conditions which require immediate rehabilitation to keep the bridge in service, or geometric deficiencies which adversely affect current traffic safety, capacity or operation. Conditions that have the potential to make bridges vulnerable to possible future events such as scour, barge or ship collision, or earthquakes do not have an immediate effect on traffic using bridges on a daily basis. Rather they are possible statistical events which may, at some future date, have an adverse affect on bridges. The FHWA does not plan to include seismic vulnerability or other potential conditions as conditions rendering a bridge deficient for HBRRP purposes. However, the FHWA supports the recent legislation which allows states to use HBRRP funds to retrofit both deficient and non-deficient bridges without skewing the method used to apportion bridge program funds to the states.

TRAVEL MODEL IMPROVEMENT PROGRAM

Mr. CARR. In October 1993, the General Accounting Office reported that some of the analytical tools states and localities use to make transportation investment decisions are not adequate. In particular, there are no common measures for comparing different transportation alternatives and travel demand models do not provide the information necessary for analyzing the impact of transportation projects on air quality. In fiscal year 1992, DOT, in cooperation with the Environmental Protection Agency and the Department of Energy, established the Travel Model Improvement Program (TMIP). This program is designed to develop the next generation of travel demand models and to address some of the deficiencies in travel demand forecasting.

What actions has the DOT taken to develop common measures for comparing different transportation alternatives?

[The information follows:]

Through research at the national level on approaches and methodologies, we are developing analytic criteria which can be offered to the states and MPOs for their use. Consistent with the intent of ISTEA, we believe the states and MPOs should have the flexibility to modify these measures to meet their particular needs.

MPOs and states need guidance and how to analyze the impacts of transportation alternatives. Our major efforts in this area are:

A. Work is under way to develop the technical methodology for states and MPOs to use to develop intermodal evaluations;

B. Outreach in public forums to state governments and MPOs on computer-based methodology to make cross-modal comparisons using common measures, and on the use of common measures for cross-modal comparisons of travel corridor alternatives.

C. A new course is being developed through the National Highway Institute on estimation of impacts of multi-modal alternatives. A field test is tentatively scheduled for June 1994.

D. An interagency task force is reviewing and developing multi-modal evaluation techniques.

E. A report is being prepared that provides examples of analyses that demonstrates the key principles of corridor and/or subarea planning.

F. A new National Transit Institute course is being developed to provide training in state-of-the-art processes and procedures for multi-modal planning.

MULTIMODAL TRANSPORTATION

Mr. CARR. What actions has the DOT's interagency task force on multimodal evaluation techniques taken regarding common measures for comparisons of transportation alternatives and how will these actions facilitate such comparisons?

[The information follows:]

The Interagency Task Force On Multimodal Evaluation is serving as a review panel for all the above research and course development activities. Additionally, the task force is developing proposals for a multimodal DOT strategic training program for training of state, MPO and local personnel.

Mr. CARR. What additional actions does the DOT plan to take to ensure states and localities use a total systems approach—an approach in which all modes of transportation are considered when selecting projects for funding—when evaluating transportation problems?

[The information follows:]

We will provide technical training through the above mentioned NHI and NTI courses. Additionally, we will continue to provide technical assistance to state, MPO and local personnel, as well as our in-house and contract research. Our long term research program includes development of methodologies to quantify and evaluate environmental and social costs of modal alternatives.

Implementation of the metropolitan planning regulations issued last October will ensure a total system approach. Specifically, the major investment requirement in all areas and the single occupant vehicle requirement in non-attainment areas will ensure the consideration of all modes in the analyses of transportation problems.

TMIP DEVELOPMENT

Mr. CARR. What is the status of the TMIP and development of the comprehensive program plan for this program?

[The information follows:]

A draft comprehensive workplan has been developed and is being circulated within DOT for review. A plan has been developed to approach other agencies, including the Environmental Protection Agency and the Department of Energy, to jointly fund portions of the program. Methods to improve existing procedures are under development and initial products will be distributed during fiscal year 1994.

The long range model improvement effort, TRANSIMS (Transportation Analysis and Simulation System), has been reviewed by the DOT Research and Technology Steering Committee and by review panels composed of representatives of state governments and MPOs (the ultimate users). TRANSIMS is a complete redesign of travel of forecasting procedures. It was demonstrated in concept last year at the Los Alamos Laboratory in New Mexico. This demonstration showed that TRANSIMS theoretical concepts are feasible. As a result of last year's efforts, intermediate products analyzing household travel activity is being readied for distribution to the state DOTs and MPOs. Other products also are expected to result from the TRANSIMS effort. User groups reviewing TRANSIMS believed it has the potential to radically improve forecasting procedures. Plans are being developed to approach other federal agencies to jointly participate in funding this project.

Mr. CARR. How is TMIP research being coordinated both within and outside DOT and what program changes have been made as a result of this coordination?

[The information follows:]

TMIP has three levels of coordination: (1) within DOT; (2) between DOT and the other federal agencies; and, (3) between DOT and the transportation community at large. Within DOT, a working group, composed of representatives from Federal Highway Administration, Federal Transit Administration, and the Office of the Secretary, has been formed to provide oversight and project management. Staff contacts also have been made with the Department of Energy and the Environmental Protection Agency, and plans have been developed for the Deputy FHWA Administrator to pursue higher level contacts with these agencies. A broad-based review panel has been formed to ensure that the program is coordinated with the ultimate users of the research. This panel includes representatives from state government, metropolitan planning organizations, the environmental community, and developer groups.

Mr. CARR. How will DOT ensure results of the TMIP are useful for analyzing the impact of transportation projects on air quality?

[The information follows:]

DOT, specifically the Federal Highway Administration and the Federal Transit Administration, provide training and technical assistance to state governments and MPSs in the use of travel forecasting procedures. The results of the TMIP program will be incorporated into this training. The procedures which are under development will be field tested in local areas to assure that they are useful for analyzing the impact of transportation projects on air quality. Contact has been established with the EPA Office of Mobile Sources to coordinate the development of air quality estimation methods, and to ensure that procedures developed will be useful.

Mr. CARR. What role will the Bureau of Transportation Statistics and the Office of Intermodalism play in the development of the TMIP?

[The information follows:]

The Bureau of Transportation Statistics and Office of Intermodalism will continue to monitor the TMIP project, provide data, and offer expertise as needed.

CATHODIC PROTECTION FOR BRIDGES

Mr. CARR. Last year's Committee report urged the Federal Highway Administration to make cathodic protection part of the preliminary specifications and engineering approval for bridge deck overlay projects where salt contamination is present. What has the FHWA done in response to this guidance from the Committee?

[The information follows:]

The FHWA continues to encourage states to include cathodic protection in bridge deck overlay projects by providing technical advice, and consultation, and by appropriate demonstration projects and technology transfer activities. At the same time, the FHWA recognizes the states as partners and prime movers in the design, construction, rehabilitation and maintenance of the highway system, and continues the on-going practice of allowing the state DOT's to make the choice of rehabilitation methods.

DISTRICT OF COLUMBIA PAVEMENT PERFORMANCE

Mr. CARR. Recent press reports have indicated that the District of Columbia continues to use a more expensive, lower quality of asphalt for its roads despite the widespread application of superior methods throughout the country. According to the reports, the District government uses sheet asphalt that breaks down quickly under heavy loads and bad weather.

What are the relative merits of sheet asphalt compared with other mixtures?

[The information follows:]

Sheet asphalt accounted for less than 10 percent of all of the paving in the District in 1993. The District uses sheet asphalt at locations where esthetics are a critical consideration (e.g. Mall Monument Area), and at selected complex urban street locations with manholes and other drainage features, to facilitate paving operations. Sheet asphalt provides a more uniform/smooth dark black surface. It is preferred by the Commission on Fine Arts, the Pennsylvania Avenue Development Corporation, the National Capital Planning Commission, and some other quasi-governmental agencies.

Mr. CARR. Do any other major cities in the nation use sheet asphalt to the extent used by the District?

[The information follows:]

We do not have any data on the use of sheet asphalt in the U.S.

Mr. CARR. Has the Federal Highway Administration provided any technical assistance to the District of Columbia on this matter?

[The information follows:]

The Federal Highway Administration has continually encouraged and accommodated District participation in FHWA training courses, pavement seminars, and other pavement related training opportunities. FHWA is working closely with the District on the implementation of a pavement management system and is using this as a vehicle to evaluate the Districts pavement design selections.

STATUS OF AUTHORIZED DEMONSTRATION PROJECTS

Mr. CARR. Update the information found on page 555 of the 1994 hearing volume regarding the status of authorization demonstration projects.

[The information follows:]

STATUS OF DEMONSTRATION PROJECT OBLIGATIONS FOR SELECTED AUTHORIZATIONS

[Dollars in millions]

	Funds available for obligation	Unobligated balance[1]
1982 authorization	$380	$15
1987 authorization	1,431	334
1991 authorization[2]	3,968	1,821

[1] As of March 28, 1994.

[2] Funds available for these projects authorized by P.L. 102–240 (ISTEA) are through fiscal year 1994.

ISTEA FUNDING OBLIGATED FOR TRANSIT PROJECTS

Mr. CARR. Update the information found on pages 664–665 of the 1994 hearing volume dealing with ISTEA funding obligated for transit projects.

[The information follows:]

The following table shows the amount of highway funds used for transit purposes, by state, urban area and category of funding. To date there have been no transit funds used for highway purposes.

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			FUNDS OBLIGATED			
STATE	CITY	PROJECT	STP	CMAQ	OTHER	STATE TOTAL
ALABAMA	MONTGOMERY	TRANSIT CAPITAL IMPROVEMENTS	501,476	0	0	
	MONTGOMERY	TRANSIT IMPROVEMENTS	2,792,000	0	0	
	MONTGOMERY	TRANSIT IMPROVEMENTS	0	1,535,000	0	
	MONTGOMERY	TRANSIT CAPITAL IMPROVEMENTS	504,386	0	0	
	MONTGOMERY	TRANSIT CAPITAL IMPROVEMENTS	75,914	0	0	5,408,776
	FAIRBANKS	PURCHASE TWO LIFT-EQUIPPED BUSES	243,000	0	0	
ALASKA	FAIRBANKS	PURCHASE OF TRANSIT VEHICLES	0	1,966,982	0	2,209,982
ARIZONA	TUCSON	PURCHASE TWO BUSES	600,000	0	0	
	TUCSON	PURCHASE BUSES, BIKE RACKS	1,792,000	0	0	
	TUCSON	PURCHASE 4 BUSES-3 VANS	1,386,682	0	0	
	MARICOPA	PURCHASE 18 BUSES	0	999,580	0	
	MARICOPA(PHOENIX)	UPGRADE AND REFURBISH BUSES	0	5,700,000	0	
	MARICOPA(PHOENIX)	PURCHASE BUSES, RADIOS, FAREBOXES	0	5,450,000	0	15,928,262
CALIFORNIA	SACRAMENTO	DESIGN/CONST NATURAL GAS FUEL STN	1,200,000	0	0	
	SAN LUIS OBISPO	PURCHASE TWO CNG BUSES	468,000	0	0	
	BAYFAIR HAYWARD	GRANT APPLICATION	2,887,300	913,600	0	
	BAYFAIR HAYWARD	GRANT APPLICATION	0	0	0	
	AREAWIDE	PURCHASE 12 FULL SIZED BUSES	0	2,138,000	0	
	COUNTYWIDE	PURCHASE FIVE BUSES	0	4,221,450	0	
	DELANO	PURCHASE PASSENGER VEHICLES	0	252,311	0	
	SANTA MARIA	PURCHASE 1 CNG BUS	0	176,000	0	
	COUNTYWIDE	BUS REPLACEMENT	0	264,727	0	
	RIVERSIDE	SITE IMP. @CNG FUELING	0	400.000	0	
	SAN JOSE	DESIGN DOUBLE TRACKING	400,000	0	0	
	WATSONVILLE	DESIGN & RESTORATION	0	177,000	0	
	SAN DIEGO	REPLACE BUSES AND SIGNS	531,000	0	0	
	SAN DIEGO	REPL OLD BUSES & SIGNS, BUS STOPS	0	9,269,000	0	
	SAN DIEGO	CONST BUS CTR & PURCHASE BUSES	0	1.760.800	0	
	FRESNO	PURCHASE 20 BUSES	0	2,205.000	0	
	STOCKTON	BUS PURCHASE AND COMMUTER SERVICE	0	3,753.600	0	
	STOCKTON	PURCHASE BUSES	0	1,640,688	0	
	CITYWIDE	PURCHASE 2 BUSES	0	123,942	0	
	SAN BERNARDINO	PURCHASE 3 BUSES/20 SHELTERS	0	224,000	0	
	N/A	PURCHASE BUSES	0	260.610	0	
	STANISLAUS	AUTOMATIC VEHICLE LOCATER	0	79,916	0	
	MERCED	PURCHASE BUSES	0	101,200	0	
	MONTEREY COUNTY	PURCHAS BUSES, INSTALL BIKE RACKS	680.000	0	0	
	STOCKTON	TRANSIT MALL UPGRADE	160,000	0	0	
	HOLLYWOOD	CONT. TRANSITWAY	21,326,000	0	0	
	TULARE	PURCHASE 2 BUSES	0	97,383	0	
	SAN FRANCISCO	CONST. MUNI TURNAROUND	3,400,000	0	0	
	SAN FRANCISCO	CONT. MINI TURNAROUND	0	5,400,000	0	
	SANTA BARBARA	PURCHASE SHUTTLES CONVERT TO CNG	0	523,035	0	
	STATEWIDE	TRANSFER CNTRS/FARE COLLECTION SYS	468,700	0	0	
	SACRAMENTO	REGIONAL TRANSIT PROJECTS	2,183,954	0	0	
	SANTA CLARA	REPLACE STORAGE TANK & BUS YARD	3,600,000	0	0	
	LOS ANGELES	MTA BUY REPL BUSES	13,247,000	0	0	
	COUNTYWIDE	PURCHASE 6 ALTERNATIVE FUEL BUSES	1,320,000	0	0	
	SAN FRANCISCO/OAKLAND	BUS PURCHASE	1,736,400	0	0	
	COUNTYWIDE	ELECTRONIC TROLLEY BUS PROGRAM	0	8,300,000	0	
	OJAI	PURCHASE 2 TROLLY BUSES	0	177,060	0	
	STATEWIDE	TRANSFER CNTRS/FARE COLLECTION SYS	0	7,974,400	0	
	LOS ANGELES	MTA BUY REPL BUSES	0	35,034,000	0	
	SAN RAFAEL	PARK AND RIDE LOT	0	400,000	0	
	SACRAMENTO	REGIONAL TRANSIT PROJECTS	0	4,418,135	0	
	GOLDEN EMPIRE	CONSTRUCTION CNG FUELING STATION	0	1,360,000	0	
	BAKERSFIELD	PURCHASE & RETROFIT BUSES FOR CNG	0	1,150,890	0	
	VENTURA	VISTA DEMO. BUY BUSES	0	2,859,060	0	
	SO. CALIFORNIA	PURCHASE 210 BUS RADIOS	0	932,800	0	
	FOOTHILL TRANSIT ZONE	LEASE OF 162 COACHES	0	4,220,000	0	
	FRESNO	PURCHASE 2 PASSENGER VEHICLES	0	141,559	0	
	FRESNO	PURCHASE PASSENGER VEHICLES	0	283,296	0	
	VENTURA	PURCHASE 5 BUSES-GRANT	0	1,128,757	0	
	YOLO	RETROFIT BUSES FOR ADA COMPLIANCE	133,650	0	0	
	SANTA ROSA	BUS REHAB/PURCHASE	800,000	0	0	
	NAPA	PURCHASE 6 BUSES	1,115,100	0	0	
	SONOMA	PURCHASE 15 BUSES	3,520,000	0	0	
	N/A	PROPERTY ACQ. TRANSIT FAC	130.000	0	0	

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STATE	CITY	PROJECT	FUNDS OBLIGATED SIP	 CMAQ	 OTHER	STATE TOTAL
	N/A	AUTO DISPATCH ROUTING SYSTEM	70,500	0	0	
	SAN LUIS	REHABILITATE 10 TRANSIT BUSES	81,300	0	0	
	N/A	PURCHASE BUSE	200,000	0	0	
	YOLO	RETROFIT BUSES FOR ADA COMPLIANCE	0	885,300	0	
	LOS ANGLES	OPERATING ASSISTANCE	0	2,740,100	0	
	CITYWIDE	PURCHASE OF 6 BUSES	0	552,000	0	
	SANTA CLARA	BUS LEASE	0	769,600	0	
	MISSION VALLEY	CONSTRUCT MISSION VALLEY LINE	0	1,770,600	0	
	LOS ANGELES	PURCHASE OF 8 BUSES	0	1,792,000	0	
	N/A	PARK & RIDE LOTS/2 ONFD CNTR	0	2,000,000	0	
	LOS ANGELES	PURCHASE 29 BUSES; CA-90-X576	0	4,111,400	0	
	SACRAMENTO	PURCHASE BUSES AND VANS	0	1,055,000	0	
	N/A	TWO PARK & RIDE LOTS, ONFD CNTR	0	0	2,032,800 5/	179,735,923
COLORADO	DENVER	TRANSPORTATION IMPRO PROG	62,000	0	0	
	BOULDER	TRANSIT	140,000	0	0	202,000
CONNECTICUT	HARTFORD	UNION STATION REHAB	61,832	0	0	
	N/A	GRIFFIN LINE STUDIES	120,000	0	0	
	BRIDGEPORT	REPLACE PECK BRIDGE	0	14,173,600	0	
	HARTFORD	PURCHASE BUS	0	4,454,400	0	
	HARTFORD	PURCHASE BUSES	0	75,200	0	
	HARTFORD	PURCHASE BUSES/RADIO/BOXES	0	540,800	0	
	HARTFORD	PURCHASE BUSES/VANS	0	183,200	0	
	BRIDGEPORT	REPLACE PECK BRIDGE	8,774,630	0	0	
	HARTFORD	COMMUTER EXPRESS BUSES	0	8,442,400	0	36,826.062
D[illegible] OF COL.	WASHINGTON	PROCUREMENT OF NEW REPL. BUS	3,400,000	0	0	
	WASHINGTON	PROCUREMENT OF NEW REPL. BUS	0	1,800,000	0	
	WASHINGTON	PROCUREMENT OF NEW REPL. BUS	0	3.800,000	0	9.000.000
FLORIDA	PINELLAS COUNTY	BUS PURCHASE	0	4,455,808	0	
	ORLANDO	MAINTENANCE FACILITY	600,000	0	0	
	N/A	FTS TRANSFER-BUS ENG	0	240,000	0	
	N/A	FTS TRANSFER-BUS PURCHASE	0	1,838,400	0	7,134,208
GEORGIA	ATHENS	TRANSIT IMPROVEMENT	394,955	0	0	
	SAVANNAH	TRANSIT PROGRAM	1,372,784	0	0	
	ATHENS	TRANSIT PROJ	110,000	0	0	
	ATLANTA	TRANSIT PROJECT	3,816,000	0	0	
	N/A	TRANSIT PROJ	0	240,000	0	
	N/A	TRANSIT PROJ	0	947,200	0	6,880,939
HAWAII	MAUI/KAUAI	TRANSFER TO TRANSIT FTA	1,290,000	0	0	1,290,000
IDAHO	BOISE	PURCHASE NATURAL GAS BUS	0	870,000	0	
	COEUR O'ALENE	NORTH ID. COMMUNITY EXPRESS VANS	0	91,000	0	
	TWIN FALLS	TRANSPORTATION IV BUSES (4)	0	407,920	0	
	BOISE	PURCHASE NATURAL GAS BUS/ FUEL EQUIP.	0	1,923,200	0	
	BOISE	FUEL DEPOT FOR NAT. GAS BUSES	0	480,000	0	
	POCATELLO	NATURAL GAS BUS FUEL EQUIP.	0	216,000	0	
	KOOTENAI	NORTH ID COMMUNITY EXPRESS VAN	0	79,200	0	
	CANYON COUNTY	COUNTY BUS TRANSPORTATION	0	601,600	0	
	MCCALL AREA	VALLEY TRANSIT BUSES	0	80.546	0	4,749,466
ILLINOIS	CHICAGO	COMMUTER LOT	0	3,900,000	0	
	CHICAGO	PURCHASE 45 BUSES	0	7,000,000	0	
	CHICAGO	PURCHASE 200 VANS	0	3,900,000	0	
	CHICAGO	COMMUTER PARKING LOTS STATIONS	262,500	0	0	
	CHICAGO	PARK-N-RIDE	225.000	0	0	
	CHICAGO	PRELIMINARY LAND ACQU	52,000	0	0	
	CHICAGO	PURCHASE 100 BUSES & PARTS	0	18,343,032	0	
	CHICAGO	COMMUTER PARKING LOTS AND ST	0	9,462,400	0	
	CHICAGO	BUS PURCHASE & STATIONS	0	3,359,960	0	
	CHICAGO	PRELINARY ENG LAND ACQU	0	2.050,400	0	
	CHICAGO	PRELIMARY ENG LAND ACQU	0	269,600	0	
	CHICAGO	PE LAND ACQU	0	2,036,000	0	
	CHICAGO	PREMINIMARY ENGINEERING	0	299,200	0	
	CHICAGO	VAN POOL SERVICES	0	84,825	0	
	CHICAGO	COM PK LOTS CONS R	0	18,830.400	0	
	CHICAGO	MARKET PROG RAPID TRANSIT PE	0	420,000	0	70,495,317

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STATE	CITY	PROJECT	STP	CMAQ	OTHER	STATE TOTAL
INDIANA	GARY	TWO 35' LNG BUSES W/LIFT	0	420,000	0	
	GARY	REMANUFACTURE BUS 40' W/LIFT	0	96,000	0	
	GARY	REPLACE 3 DIESEL BUSES W/ LIFTS	0	480,000	0	
	HAMMOND	CENTRAL BUS. LINK-UP	0	86,760	0	
	SOUTH SHORE	BI DIRECTIONAL SIGNALING ON SOUTH	0	1,200,000	0	
	SOUTH SHORE	SIGNAL CONVERSION ON SOUTH SHORE	0	96,000	0	
	SOUTH SHORE	PARK-N-RIDE FAC ON S. SHORE RR	0	72,000	0	2,450,760
IOWA	STATEWIDE	BUS PURCHASES	0	0	50,000 1/	
	STATEWIDE	BUS PURCHASES	0	0	57,996 1/	107,996
KENTUCKY	STATEWIDE	PUBLIC TRANS.	1,200,000	0	0	
	STATEWIDE	PUBLIC TRANS.	0	3,929,520	0	
	ASHLAND	PURCHASE BUSES- ADD EQUIPMENT	0	344,000	0	5,473,520
LOUISIANA	STATEWIDE	N/A	753,645	0	0	
	SHREVEPORT	TRANSFER TO FTA	1,259,000	0	0	
	NEW ORLEANS	TRANSFER TO FTA	2,500,000	0	0	
	NEW ORLEANS	TRANSFER TO FTA	2,500,000	0	0	
	NEW ORLEANS	TRANSFER TO FTA	1,600,000	0	0	8,612,645
MAINE	PORTLAND	BUS PURCHASE	449,568	0	0	
	PORTLAND	RADIO PURCHASE	44,154	0	0	
	PORTLAND	FAREBOX & EQUIPMENT PURCHASE	160,961	0	0	654,683
MARYLAND	BALTIMORE	REFURBISH/PURCHASE RAIL EQUIP	0	11,306,860	0	11,306,860
M 'USETTS	CANTON	INTERMODAL STATION IMPV. BY MBTA	935,000	0	0	
	STATEWIDE	ACCESSIBILITY IMPV'S CONST. MBTA	588,150	0	0	
	GLOUCESTER	GRADE CROSSING IMPV'S CONS. BY MBTA	120,000	0	0	
	LINCOLN	GRADE CROSSING IMPROVEMENTS MBTA	120,000	0	0	
	OLD COLONY	FIXED RAIL TRANSIT BY MBTA	0	21,040,000	0	
	STATEWIDE	INTERMODAL PARKING FACILITIES MBTA	0	6,560,000	0	
	STATEWIDE	INTERMODAL IMPV'V TO WESTFORD STA.	0	2.880.000	0	
	WORCESTER	PE & ROW TRANS CENTER ADM BY MBTA	0	800,000	0	
	SOUTH STATION	CONS. UNDER THE DIR OF THE MBTA	0	27,200,000	0	
	BOSTON	FIXED RAIL TRANSIT BY MBTA	0	23.760,000	0	
	BOSTON	ADA KEY STATION PLAN MBTA	0	588,151	0	84,591,301
MICHIGAN	DETROIT	PURCHASE 14 SM. BUSES	1,080,000	0	0	
	ANN ARBOR	HOV FACILITY	60,000	0	0	
	SOUTHEAST	SMART PATHWAY	24,000	0	0	
	UNION DEPOT	TRAIN DEPOT	554,970	0	0	
	KALAMAZOO	EQUIP & TOOLS FOR BUSES	20,000	0	0	
	TWIN CITIES	SECURITY SYS OFFICE EQUIP.	37,840	0	0	
	SOUTHEASTERN	PURCHASE 8 BUSES	0	1,536,000	0	
	DETROIT	PURCHASE 12 DIESEL COACHES	0	2,304,000	0	
	GRAND RAPIDS	PURCHASE 6 30' BUSES	0	768,000	0	
	GRAND RAPIDS	CBD TICKET PROGRAM	0	58,000	0	
	GRAND RAPIDS	PARK AND RIDE LOTS	0	64,000	0	
	ANN ARBOR	TRAVEL DEMAND MANAGE PROGRAM	0	120,000	0	
	ANN ARBOR	CAR POOL LOT	0	80,000	0	
	MUSKEGON	BUS PURCHASE	0	192,000	0	
	GRAND RAPIDS	BUS REPLACEMENT	0	304,000	0	
	GRAND RAPIDS	EXPAND RTRANSIT SERVICES	0	298,000	0	
	ANN ARBOR	BUS REPLACEMENT	0	180.000	0	
	ANN ARBOR	TRAVEL DEMAND MGT SUTUDY	0	128,000	0	
	JACKSON	SMALL BUS W/LIFT, BUS PARTS	69,334	0	0	
	JACKSON	SM BUS W/LIFT 21	48,800	0	0	
	JACKSON	TWO MINI VANS	32,000	0	0	
	JACKSON	BUS COMPONENT PARTS	29,280	0	0	
	VAN BUREN	ENLARGE PARKING AREA	11,501	0	0	
	WEXFORD	OFFICE FURNITURE	6.400	0	0	
	OSTEGO CO.	MAINTENANCE EQUIP.	5,000	0	0	
	SHIAWASSEE CO.	PASSENGER SHELTER & LOAD PAD	6,000	0	0	
	MECOSTA	COMPUTER AND FURNITURE	3,600	0	0	
	OSCODA CO.	COMPUTER SOFTWARE AND TYPEWRITER	8,000	0	0	
	OCEANA CO.	RESURFACE PARKING AREA	54,400	0	0	
	NEWAYGO	COMMUNICATION SAFETY EQUIP.	800	0	0	
	MECOSTA	FACILITY REPAIRS	5,392	0	0	

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STATE	CITY	PROJECT	STP	CMAQ	OTHER	STATE TOTAL
	MENOMINEE/DELTA	PURCHASE 3 AUX. HEATERS	4,000	0	0	
	CHIPPEWA/LUCE	ONE BUS SHELTER	4,000	0	0	
	MANISTEE CO.	HOIST REPAIR	6,320	0	0	
	GREATER LAPEER	PURCHASE 2 RADIOS	2,000	0	0	
	LENAWEE	PORTABLE POWER WASHER	4,500	0	0	
	ISABELLA CO.	UPGRADE LEAD DETEC. EQUIP.	8,000	0	0	
	YATES DIAL-A-RIDE	TRACTOR WITH MOWER	25,600	0	0	
	HURON	PURCHASE RIDING LAWN MOWER	2,000	0	0	
	DICKENSON IRON	FEASIBILITY STUDY	10,000	0	0	
	GLADWIN CO.	PARKING LOT GRAVEL	9,600	0	0	
	GOGEBIC CO.	ONE VEHICLE MOBILE RADIO UNIT	2,160	0	0	
	CRAWFORD CO.	COMPUTER EQUIP.	8,000	0	0	
	DELTA AREA	COMPUTER WORK/SOFTWARE	45,960	0	0	
	BERRIEN CO.	VENTILATION EQUIP.	18,800	0	0	
	EUPTA/SAULT	BUS SHELTER	6,400	0	0	
	BARRY CO.	TRANSIT COMPUTER	8,000	0	0	
	BAY CO.	LIFT EQUIPPED VAN	26,400	0	0	
	INTER URBAN	BUS WASHER	10,400	0	0	
	THUNDER BAY	COPIER AND OFFICE EQUIP.	2,000	0	0	
	ALLEGAN CO.	PURCHASE COMPUTER SOFTWARE	2,400	0	0	
	ALLEGAN CO.	PURCHASE VAN W/ACCESS FOR 2-3 WHEEL	31,600	0	0	
	ALLEGAN CO.	TELEPHONE SEQUENCER	800	0	0	
	ALLEGAN CO.	COPIER AND OFFICE EQUIPMENT	2,000	0	0	8,330,257
MINNESOTA	DULUTH	MALL HUB SYSTEM AND BIKE RACKS	0	344,000	0	
	ST. PAUL	CONST. BUS SHELTERS	0	938,961	0	
	ST. PAUL	TRANSIT HUB	0	554,108	0	
	VICINITY TH610	PARK & RIDE LOT	370,400	0	0	
	TWIN CITIES	LIGHTING MAJOR BUS STOPS	0	199,998	0	
	SEVEN COUNTY	SYSTEMWIDE BUS STOP SIGN	0	1,223,200	0	
	ST. PAUL	CAPITAL PROJECTS	2,800,000	0	0	
	DULUTH	FIVE BUS REPLACEMENTS	0	960,000	0	
	DULUTH	PARK AND RIDE LOTS	0	48,000	0	
	DULUTH	TRAM SHUTTLE VEHICLES	0	68,000	0	
	ON1394	BUS SERVICE STARTUP	0	2,400,000	0	9,906,667
MISSOURI	LAMBERT & STCHS	METRO LINK STUDY	0	160,000	0	
	LAMBERT & STCHS	ALT ANA STDY LAMBERT ARPRT	0	160,000	0	320,000
MONTANA	MISSOULA	REPLACE BUSES,SIGNAGE BUS SHELTERS	0	840,800	0	840,800
NEBRASKA	OMAHA	PURCHASE TRANSIT BUSES	400,000	0	0	400,000
NEW JERSEY	STATEWIDE	HISTORIC RAIL STATION	4,000,000	0	0	
	STATEWIDE	PURCHASE DIESEL LOCOMOTIVE	0	13,000,000	0	
	STATEWIDE	SIGNAL SYSTEM UPGRADE	0	17,000,000	0	
	STATEWIDE	IMPLEMENT NONTRADITIONAL TRANSIT	0	5,000,000	0	
	STATEWIDE	UPGRADED TRANSIT SERVICE	0	5,000,000	0	
	STATEWIDE	EMPLOYER TRIP REDUCTION	0	1,500,000	0	
	STATEWIDE	RAIL STATION IMPROVEMENTS	4,761,000	0	0	
	STATEWIDE	FTA EXPERIMENTAL SERVICES	0	2,500,000	0	52,761,000
NEW MEXICO	GALLUP	RENOVATION OF R/R DEPOT	400,000	0	0	
	ALBUQUERQUE	TRANSIT RELATED	0	1,309,600	0	1,709,600
NEW YORK	NEW YORK CITY	DESIGN & CONST VARIOUS CAPITAL	26,700,000	73,300,000	100,000,001 1/	
	DUTCHESS COUNTY	TRANSFER TO FTA-BUS SHELTERS	0	116,000	0	
	DUTCHESS COUNTY	TRANSFER TO FTA-BUS PURCHASE	0	400,000	0	
	DUTCHESS COUNTY	TRANSFER TO FTA-MARKETING	0	61,000	0	
	NEW YORK CITY	TRANSFER TO FTA-OPERTING COST	0	219,400	0	
	GLEN FALLS	TROLLEY BUS PURCHASE-TRNSFER TO FTA	240,000	0	0	
	SARATOGA COUNTY	TRANSFER TO FTA FOR BUS PURCHASE	1,048,000	0	0	
	GLOVERSVILLE	STP TRANSFER TO FTA	48,000	0	0	
	NEW YORK-NORTHEASTERN	BUS GARAGE-STP TRANSFER	22,704,988	0	0	
	NIAGARA	3 PARK AND RIDE LOTS	0	492,000	0	
	CAPITAL DISTRICT	TRANSIT PROJECTS WITH CMAQ TRANSFER	0	2,108,000	0	
	NASSAU COUNTY	BUS PURCHASE	0	2,129,600	0	
	DUTCHESS COUNTY	BUS PURCHASE	800,000	0	0	
	CAPITAL DISTRICT	TRANSIT PROJECTS	0	1,400,000	0	
	NIAGARA FRONTIER	TRANSIT IMPROVEMENTS	0	5,902,400	0	
	NEW YORK CITY	TRANSFER OF FUNDS TO TRANSIT	15,000,000	0	0	

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STATE	CITY	PROJECT	STP	FUNDS OBLIGATED CMAQ	OTHER	STATE TOTAL
	N/A	STP TRANSFER TO TRANSIT	1,600,000	0	0	
	N/A	STP TRANSFER TO TRANSIT	480.000	0	0	
	POUGHKEEPSIE	BUS REMNFCTR	0	300,000	0	
	POUGHKEEPSIE	DEMO PR ADM	0	448,000	0	
	N/A	STP TRANSFER TO TRANSIT	144,000	0	0	
	SYRACUSE	TRANSFER OF FUNDS	0	5,518,400	0	
	NEW YORK CITY	TRANSFER OF FUNDS TO TRANSIT	0	23,030,160	0	284,189,949
NORTH CAROLINA	DURHAM	TRANSIT PROJECT	160,000	0	0	160,000
OHIO	N/A	CAPITAL IMPROVEMENTS	84,400	0	0	
	N/A	PARK & RIDE LOTS	7,189,000	0	0	
	COLUMBUS	ST ADMIN SCHOOL BUSES/VANS/MAINT. FAC	1,298,977	0	0	
	COLUMBUS	PE	193,600	0	0	
	COLUMBUS	20 LIFT EQUIP BUSES	0	3,500,000	0	
	CLEVELAND	PASSENGER ACCESSWAY	0	8,648,000	0	
	STATEWIDE	STUDY, FIXED GUIDEWAY TRANSIT SYSTEM	600,000	0	0	
	SORTA	PARK, RIDE AND ROWA	2,758,000	0	0	
	COLUMBUS	48 BICYCLE STORAGE LOCKERS	0	650,000	0	
	AKRON	PURCHASE RAIL LINE	788,574	0	0	
	CLEVELAND	CONSTRUCT CNG FUELING FACILITY	0	2,400,000	0	
	STATEWIDE	TWO PARK AND RIDE LOTS	800,000	0	0	
	RICHLAND CO.	PURCHASE 7 BUSES	133,850	0	0	
	EUCLID	PARK AND RIDE LOTS	0	4,800,000	0	
	TOLEDO	BUS REPLACEMENT - 20 BUSES	3,440,000	0	0	
	CLARK CO.	PURCHASE 5 HEAVY BUSES	95.000	0	0	
	EUCLID	COMMUTER BUS SERVICE	0	445,055	0	37,824,456
r A	OKLAHOMA CITY	FUND TRANSFER	0	400,000	0	
	TULSA	FUND TRANSFER	0	400.000	0	800,000
OREGON	PORTLAND	BUS PURCHASE	485,000	0	0	
	PORTLAND	RIDESHARE	0	535,000	0	
	SALEM	BICYCLE RACK PURCHASE	21,600	0	0	
	TRIMET	BUS PURCHASE	0	3,768,000	0	
	CORVALLIS	BUS PURCHASE	480,000	0	0	5,289.600
PENNSYLVANIA	VAR MUNICIPALITIES	PURCHASE 10 MINI BUSES	648.000	0	0	
	ALLENTOWN	PURCHASE LIFT VEHICLES	400,000	0	0	
	NORTH HAMPTON	CAQ FUNDS TRANSFER TO FTA	0	648,000	0	
	VILLANOVA	SMALL BUS SERV CIRCULATOR DEMO	0	108,000	0	
	PHILADELPHIA	TRANSITCHEK PROGRAM	0	370,000	0	
	AMTRAN TRANSIT	MARKETING/ADVERTISING	0	20,000	0	
	CALIFORNIA	PURCHASE HANDICAP ACCESSIBLE BUS	0	200,000	0	
	AREA WIDE	BIKE RACKS/ENHANCE INTERMOD. CONNCT.	24,000	0	0	
	AREA WIDE	PED & BIKE TRAIL	286,000	0	0	
	OVERBROOK FARMS	RENOVATE TRAIN STATION	800,000	0	0	
	N/A	BRIDGE REHABILITATION	280,000	0	0	
	VARIOUS	PURCH BICYCLE RACKS FOR LANTA BUSES	10,000	0	0	
	PENN SQUARE	BUS BERTHS	0	800,000	0	
	AREA WIDE	PRE-ENG/REV PORT AUTHORITY	0	0	9,721,600 3/	
	AREA WIDE	ANALYSIS ERG-REV	0	0	3,876,510 3/	
	AREA WIDE	TRANSPORTATION TERMINAL	0	0	15,456,000 5/	33,650,110
RHODE ISLAND	KINGSTON	TRANSIT SERVICE	0	1,200,000	0	
	STATEWIDE	TRANSIT SERVICE	0	0	6,668,430 4/	7,868,430
TENNESSEE	MEMPHIS	MPO PRIORITY 7	400.000	0	0	
	CHATANOOGA	MPO PRIORITY 1 AND 8	600,000	0	0	1,000,000
TEXAS	FORT WORTH	TRANSF PROJ TO FTA FOR OVERSIGHT E	0	0	6,003,200 3/	
	FORT WORTH	BUSES	0	1,000,000	0	
	FORT WORTH	TRAVEL DEMAND MANAGEMESNT	0	100,000	0	
	AUSTIN	FEASIBILITY STUDY	132,000	0	0	
	GALVESTON	TROLLEY ROUTE EXTENSION	0	484,013	0	
	WOODLANDS	EXPAND PARK AND LOT RIDE	0	580,000	0	
	EL PASO	CONST. TRANSIT/PED TERMINALS	0	5.356,000	0	
	FORT WORTH	REPLACE 12 BUSES	0	3,080,000	0	
	FORT WORTH	RIDE SHARE PROGRAM	0	156,000	0	
	FORT WORTH	LAKE WORTH PARK AND RIDE	0	320.000	0	
	HOUSTON	CONSTRUCT PARK AND RIDE LOT	0	1,635.000	0	

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STATE	CITY	PROJECT	FUNDS OBLIGATED			STATE TOTAL
			STP	CMAQ	OTHER	
	WOODLAWN	CONSTRUCT PEDESTRAIN; TRANSIT WAY	0	1,106,000	0	
	DALLAS	PURCH ALTERNATE FUEL BUSES	0	7,560,000	0	27,512,213
UTAH	STATEWIDE	PURCHASE 10 BUSES 20 VANS	0	2,400,000	0	
	AREA WIDE	PURCHASE BICYCLES AND BUSES	0	90,000	0	2,490,000
VERMONT	STATEWIDE	TRANSIT PROJECT	1,415,588	0	0	
	STATEWIDE	PURCHASE VANS, SHELTER EQUIP	156,600	0	0	
	BURLINGTON	IMPROVE MAINT FAC	200,000	0	0	
	BURLINGTON	TRANSIT PROJECT	0	120,000	0	
	STATEWIDE	COMPUTER EQUIP	1,884,000	0	0	
	STATEWIDE	TRANSIT PROJECT	646,886	0	0	
	STATEWIDE	TRANSIT PROJECT	1,288,016	0	0	
	STATEWIDE	TRANSIT RELATED PROJECT	440,000	0	0	
	STATEWIDE	TRANSIT RELATED PROJECT	613,620	0	0	
	STATEWIDE	PROPERTY APPRAISALS/CONST SERVICES	33,400	0	0	
	STATEWIDE	TRANSIT PROJECT	471,000	0	0	
	STATEWIDE	1192	86,722	0	0	
	STATEWIDE	PURCHASE 2 COMP. NATURAL GAS BUSES	0	120,000	0	
	STATEWIDE	TRANSIT PROJECT	0	32,000	0	
	STATEWIDE	TRANSIT PROJECT	0	326,000	0	
	STATEWIDE	TRANSIT PROJECT	0	8,000	0	
	STATEWIDE	TRANSIT PROJECT	0	30,000	0	7,873,832
VIRGINIA	RAPPAHANOCK	PURCHASE LOC FEEDER VEH, RAIL CARS	4,800,000	0	0	
	WASH METRO AREA	REPLACEMENT BUSES	1,120.000	0	0	
	NEWPORT NEWS	BUSES, PASSENGER FERRY RETROFIT	2.984,280	0	0	
	BLACKSBURG	TWELVE BUSES & 18 VANS	2,768,437	0	0	
	CHARLOTTESVILLE	THIRTEEN BUSES	2,526,587	0	0	
	DANVILLE	ONE BUS	192.820	0	0	
	LYNCHBURG	TRANSFER CENTER CONT	240,000	0	0	
	RICHMOND	BVUS PURCHASE	720.000	0	0	
	ROANOKE	EIGHTEEN BUSES	3,288,000	0	0	
	NEWPORT NEWS	TWENTY-FOUR BUSES	3,840,000	0	0	
	NEWPORT NEWS	FOUR REPLACEMENT BUSES	0	704,000	0	
	HAMPTON	BUILD TRANSPORTATION CENTER	0	1,000,000	0	
	NEWPORT NEWS	BUILD TRANSPORTATION CENTER	0	1,000,000	0	
	RICHMOND	FEASIBILITY AND DESIGN STUDY	0	200.000	0	
	RICHMOND	IMPLEMENT COMPREHENSIVE TRANSIT PLAN	0	800,000	0	
	RICHMOND	ACQ ALT FUEL BUSES FOR GRTC BUSES	0	367,000	0	
	RICHMOND	CTP STRATEGIES AND RIDESHARE	0	1,011,000	0	
	WASHINGTON, D.C.	30 REPLACEMENT BUSES	0	4,600.000	0	
	WASHINGTON D.C.	REPLACEMENT BUSES	0	4,581,000	0	
	WASHINGTON, D.C.	FIVE COMMUTER BUSES	0	920.000	0	
	TIDEWATER	EIGHT BUSES AND NEW PARK & RIDE	0	1,582,000	0	
	N/A	PURCHASE BUSES & YORK OPERATIONS	0	416,000	0	
	NORFOLK-PORTSMOUTH	20 TRANSIT COACHES FOR HOV EXP BUS	0	3,440,000	0	
	PRINCE WILLIAM	WOODBRIDGE COMMUTER RAIL ST EXPANSION	0	4,508,000	0	47,609,124
WASHINGTON	STATEWIDE	PE	0	600,000	0	
	TACOMA	PE	0	1,178,425	0	
	KING & SNOHOMISH	PURCHASE BUSES & BICYCLE TRAN. TRAIL	0	10,097,078	0	
	CLARK	BUS ROLLING STOCK LIFTS PARTICULATE	0	1,827,700	0	
	CLARK	BUS SUPPORT EQUIPMENT FACILITY	27,200	0	0	
	TACOMA	PE	333.623	0	0	
	SEATTLE	METRO	100,000	0	0	
	AREA WIDE	PURCHASE TRANSIT VEHICLES	264,732	0	0	
	MASON COUNTY	PURCHASE TRANSIT VEHICLES	53,218	0	0	
	SNOHOMISH	SELECT INSTALL &EVAL SIGNALS	0	200,000	0	
	SEATTLE	PROJECT LEVEL PLANNING &ENVIR.	400.000	0	0	
	SEATTLE	PURCHASE VANPOOL VEHICLES	32,015	0	0	
	OLYMPIA	PURCHASE VANPOOL VEHICLES	55,135	0	0	
	OLYMPIA	LAND ACQUISITION	0	1,904,818	0	
	TACOMA	PURCHASE 3 WHEEL CHAIR VANS	100,000	0	0	17,173,944
WEST VIRGINIA	HUNTINGTON	PURCHASE AND RENOVATE BUS TERMINAL	0	291,246	0	291,246
WISCONSIN	MILWAUKEE	PURCHASE TRANSIT BUSES	717,000	0	0	
	MANITOWOC	PURCHASE BUS	0	200,000	0	
	MILWAUKEE	BUS UPGRADES	0	2,118,400	0	
	KENOSHA	TRANSIT MARKETING PROGRAM	0	20,000	0	

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			FUNDS OBLIGATED			
STATE	CITY	PROJECT	STP	CMAQ	OTHER	STATE TOTAL
	KENOSHA	COMMUTER RAIL	0	120,000	0	
	KENOSHA	REMODEL RAIL STA.	0	325,000	0	
	MILWAUKEE	PURCHASE BUSES	0	0	883,000 2/	4,383,400
VIRGIN ISLANDS	ST.CROIX,ST.JOHN	TRANSFER OF FUNDS	5,100,000	0	0	
	ST.CROIX,ST.JOHN	TRANSFER OF FUNDS	1,004,197	0	0	6,104,197
TOTAL OBLIGATED			244,274,263	622,523,725	144,749,537	1,011,547,525

1/ Interstate Highway Substitution Funds
2/ Minimum Allocation Urbanized Funds
3/ Priority Intermodal Projects
4/ Innovative Projects
5/ Congestion Relief Demo Project
6/ Highway Demo Projects

FEDERAL-AID OBLIGATIONS BY MONTH

Mr. CARR. Update the information appearing on page 685 of the 1994 hearing volume portraying obligations by month in the federal aid-highways program.

[The information follows:]

OBLIGATION BY MONTH

	Obligations	Percent Obligated
Fiscal year 1993:		
October	773,072,727	4.43%
November	1,008,935,060	10.21%
December	690,840,841	14.17%
January	2,466,378,642	28.31%
February	1,979,695,462	39.65%
March	1,519,299,322	48.36%
April	1,156,172,893	54.99%
May	1,263,253,591	62.23%
June	1,513,642,308	70.90%
July	1,335,668,024	78.55%
August	1,086,868,372	84.78%
September	2,655,148,760	100.00%
Total	17,448,976,002	
Fiscal year 1994:		
October	533,436,313	3.06%
November	1,230,974,806	21.33%
December	823,656,436	31.29%
January	3,650,628,773	75.43%
February	2,032,032,843	100.00%
March		
April		
May		
June		
July		
August		
September		
Total	8,270,729,171	

FIRST QUARTER (SECTION 310 (d)) OBLIGATION

Mr. CARR. Provide obligations for the first quarter of fiscal year 1994 for the projects and activities affected by section 310(d) of the 1994 Transportation Appropriations Act, Public Law 103–122.

[The information follows:]

FY 1994 FIRST QUARTER OBLIGATIONS

STATE	FIRST QUARTER OBLIGATIONS
ALABAMA	37,295,086.00
ALASKA	30,848,138.54
ARIZONA	30,164,779.68
ARKANSAS	24,219,878.00
CALIFORNIA	225,454,220.00
COLORADO	32,222,414.85
CONNECTICUT	44,731,236.19
DELAWARE	2,164,261.31
DIST. OF COL.	9,470,461.68
FLORIDA	78,661,304.00
GEORGIA	57,889,869.87
HAWAII	6,405,744.26
IDAHO	16,284,170.00
ILLINOIS	85,692,484.46
INDIANA	43,725,977.00
IOWA	30,049,250.10
KANSAS	23,171,582.24
KENTUCKY	29,827,238.78
LOUISIANA	35,475,350.91
MAINE	11,932,583.22
MARYLAND	37,745,055.42
MASSACHUSETTS	147,997,613.48
MICHIGAN	37,180,670.27
MINNESOTA	31,404,916.00
MISSISSIPPI	25,607,856.00
MISSOURI	49,591,634.13
MONTANA	22,267,817.77
NEBRASKA	19,575,837.00
NEVADA	11,204,346.00
NEW HAMPSHIRE	2,781,606.58
NEW JERSEY	61,270,355.30
NEW MEXICO	25,512,798.00
NEW YORK	126,033,471.38
NORTH CAROLINA	44,003,661.00
NORTH DAKOTA	14,980,718.00
OHIO	83,195,386.22
OKLAHOMA	32,091,846.00
OREGON	23,238,226.65
PENNSYLVANIA	98,574,670.00
RHODE ISLAND	14,524,123.21
SOUTH CAROLINA	29,269,939.00
SOUTH DAKOTA	17,201,887.22
TENNESSEE	47,708,608.13
TEXAS	143,024,228.00
UTAH	18,178,863.94
VERMONT	10,345,103.61
VIRGINIA	43,899,322.81
WASHINGTON	45,421,992.75
WEST VIRGINIA	22,382,911.08
WISCONSIN	41,441,947.38
WYOMING	15,806,387.00
PUERTO RICO	0.00
TOTAL	2,199,149,830.42

FEDERAL-AID ESTIMATED 1995 OBLIGATION LIMITATION

Mr. CARR. Provide a table reflecting estimated distribution by state of the federal-aid-highways obligation limitation as proposed in the 1995 budget.

[The information follows:]

ESTIMATED FY 1995 LIMITATION AT $19.969 BILLION

STATE	ESTIMATED FY 1995 LIMITATION
ALABAMA	316,766,340
ALASKA	224,391,920
ARIZONA	254,110,335
ARKANSAS	218,819,221
CALIFORNIA	1,596,430,434
COLORADO	209,512,525
CONNECTICUT	346,190,913
DELAWARE	69,669,971
DIST. OF COL.	89,894,382
FLORIDA	720,478,726
GEORGIA	514,427,437
HAWAII	123,794,244
IDAHO	122,873,201
ILLINOIS	641,311,976
INDIANA	364,262,454
IOWA	227,256,398
KANSAS	193,280,259
KENTUCKY	261,254,838
LOUISIANA	258,909,253
MAINE	104,414,834
MARYLAND	329,938,309
MASSACHUSETTS	1,077,600,925
MICHIGAN	494,741,135
MINNESOTA	238,173,775
MISSISSIPPI	201,500,281
MISSOURI	388,319,120
MONTANA	162,857,769
NEBRASKA	142,266,898
NEVADA	109,748,220
NEW HAMPSHIRE	84,439,219
NEW JERSEY	501,332,835
NEW MEXICO	185,782,553
NEW YORK	913,743,102
NORTH CAROLINA	468,205,749
NORTH DAKOTA	112,838,864
OHIO	676,066,209
OKLAHOMA	255,807,264
OREGON	203,817,666
PENNSYLVANIA	781,338,114
RHODE ISLAND	111,829,545
SOUTH CAROLINA	241,868,423
SOUTH DAKOTA	124,776,247
TENNESSEE	375,167,844
TEXAS	1,167,619,392
UTAH	136,061,661
VERMONT	76,160,379
VIRGINIA	405,883,362
WASHINGTON	365,729,739
WEST VIRGINIA	162,998,091
WISCONSIN	348,121,831
WYOMING	115,231,524
PUERTO RICO	83,290,984
SUBTOTAL	17,901,306,690

PAVEMENT CONDITIONS ON INTERSTATE SYSTEM

Mr. CARR. Provide a breakdown by state of the pavement conditions on the interstate system, similar to the information contained on page 689 of the 1994 hearing volume.

[The information follows:]

Exhibit 3–16
Interstate Pavements in Poor Condition
(percent of paved mileage with PSR less than or equal to 2.5)

State	Year					
	1983	1985	1987	1989	1991	1992
Alabama	0.0	0.2	0.1	0.1	0.0	0.0
Alaska	31.5	30.0	41.8	26.4	5.1	14.1
Arizona	6.2	5.7	13.3	27.4	1.2	0.4
Arkansas	3.5	4.2	4.4	5.0	0.9	1.9
California	13.2	6.1	8.1	7.1	5.0	0.6
Colorado	13.3	6.8	5.8	7.6	30.3	0.0
Connecticut	0.3	0.6	1.5	1.2	0.9	0.9
Delaware	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	16.7	33.3	25.0	25.0	25.0	0.0
Florida	5.2	2.9	6.7	5.9	13.0	2.3
Georgia	1.1	0.0	15.0	11.7	0.0	0.0
Hawaii	0.0	0.0	0.0	0.0	2.3	0.0
Idaho	12.0	14.2	15.4	30.7	22.6	30.4
Illinois	7.2	6.3	4.7	3.8	3.9	1.5
Indiana	4.8	7.3	5.2	5.2	1.9	0.5
Iowa	1.4	3.8	14.8	7.4	6.9	3.4
Kansas	66.5	66.8	11.0	9.6	5.0	0.4
Kentucky	7.7	5.3	2.8	5.6	5.0	0.8
Louisiana	13.3	2.0	9.2	2.0	1.7	9.6
Maine	8.9	7.7	9.0	7.1	5.7	3.6
Maryland	27.9	0.5	0.3	4.6	3.5	0.0
Massachusetts	1.2	2.3	4.1	2.5	0.9	0.2
Michigan	72.3	25.3	14.8	10.7	19.0	7.2
Minnesota	2.9	5.2	3.6	5.4	3.1	2.7
Mississippi	20.8	29.7	39.2	1.9	0.0	0.0
Missouri	20.8	31.6	40.0	42.0	37.2	0.2
Montana	3.0	6.0	9.1	13.4	5.0	24.0
Nebraska	0.6	8.9	2.1	9.4	3.3	3.7
Nevada	9.3	9.6	8.4	33.9	11.6	10.6
New Hampshire	1.4	0.0	10.8	19.6	16.5	2.9
New Jersey	3.9	8.1	3.8	14.8	1.5	0.1
New Mexico	34.6	34.8	12.9	1.3	38.1	17.9
New York	8.5	5.2	6.2	6.1	5.3	0.5
North Carolina	4.2	2.4	2.5	0.7	0.6	0.2
North Dakota	0.0	0.0	25.6	0.2	32.3	1.3
Ohio	21.5	11.7	10.2	11.7	7.2	0.6
Oklahoma	23.3	19.0	23.6	2.5	0.3	0.1
Oregon	46.2	33.1	35.3	15.3	9.8	7.8
Pennsylvania	11.0	16.5	9.3	7.8	2.8	1.1
Rhode Island	40.0	37.1	24.3	31.4	1.4	0.2
South Carolina	3.4	3.7	6.5	7.5	6.6	11.0
South Dakota	0.0	0.0	0.0	0.0	3.1	11.2
Tennessee	10.7	7.1	36.3	9.1	16.6	4.5
Texas	14.8	8.7	6.7	4.5	2.5	0.9
Utah	3.0	5.9	1.0	1.3	3.5	5.0
Vermont	3.8	10.3	4.4	18.7	5.9	3.3
Virginia	9.1	6.8	15.6	17.3	12.1	7.7
Washington	18.6	0.6	0.9	1.3	0.1	0.0
West Virginia	12.9	6.7	1.7	4.0	6.4	7.7
Wisconsin	30.8	23.5	24.7	18.6	0.0	0.2
Wyoming	5.6	0.2	0.2	0.2	0.0	0.0

Source: Highway Statistics, various years.

PAVEMENT CONDITIONS BY FUNCTIONAL CLASSIFICATION

Mr. Carr. Update the information appearing on page 691 of the 1994 hearing volume concerning pavement conditions by functional classification.

[The information follows:]

For Exhibit 3–13 Adds 1992 data

Functional System	Year	PAVEMENT CONDITION					
		Poor	Mediocre	Fair	Good	Unpaved	Total
Rural Interstate	1985	10.8%	14.1%	15.4%	59.7%	0.0%	100.0%
	1987	11.6%	15.5%	14.4%	58.4%	0.0%	100.0%
	1989	9.1%	15.4%	17.1%	58.4%	0.0%	100.0%
	1991	7.6%	15.6%	15.9%	60.8%	0.0%	100.0%
	1992	5.2%	14.1%	17.4%	63.2%	0.0%	100.0%
Urban Interstate	1985	11.1%	19.5%	13.5%	56.0%	0.0%	100.0%
	1987	11.1%	18.5%	15.0%	55.4%	0.0%	100.0%
	1989	9.6%	16.1%	16.7%	57.6%	0.0%	100.0%
	1991	7.7%	15.6%	16.6%	60.1%	0.0%	100.0%
	1992	7.1%	13.2%	17.0%	62.6%	0.0%	100.0%
Rural Other Arterials	1985	8.3%	10.0%	36.7%	44.9%	0.1%	100.0%
	1987	6.6%	11.0%	37.3%	45.0%	0.1%	100.0%
	1989	4.8%	9.9%	37.4%	47.8%	0.1%	100.0%
	1991	3.9%	8.0%	38.3%	49.8%	0.0%	100.0%
	1992	3.7%	6.6%	35.8%	53.9%	0.0%	100.0%
Urban Other Arterials	1985	9.0%	13.9%	34.7%	42.0%	0.5%	100.0%
	1987	8.7%	14.0%	35.2%	41.7%	0.4%	100.0%
	1989	7.7%	13.4%	36.5%	42.1%	0.3%	100.0%
	1991	6.8%	13.2%	36.0%	43.6%	0.4%	100.0%
	1992	7.2%	12.8%	34.3%	45.5%	0.3%	100.0%
Rural Collectors	1985	12.8%	13.4%	27.5%	24.2%	22.3%	100.0%
	1987	12.0%	13.0%	26.9%	26.5%	21.7%	100.0%
	1989	10.5%	12.7%	27.9%	28.6%	20.3%	100.0%
	1991	8.2%	12.0%	29.8%	30.1%	19.9%	100.0%
	1992	8.1%	11.3%	29.1%	31.8%	19.7%	100.0%
Urban Collectors	1985	13.1%	17.4%	35.3%	32.5%	1.7%	100.0%
	1987	13.6%	17.4%	36.6%	31.1%	1.3%	100.0%
	1989	17.6%	16.5%	33.3%	31.3%	1.4%	100.0%
	1991	11.3%	17.4%	36.0%	34.2%	1.1%	100.0%
	1992	10.5%	16.9%	35.2%	36.4%	1.1%	100.0%

Note: The above categories are based on the following PSR ranges:

Poor:	0.0 – 2.0 (2.5 for Interstate)
Mediocre:	2.1 – 2.5 (2.6 – 3.0 for Interstate)
Fair:	2.6 – 3.4 (3.1 – 3.4 for Interstate)
Good:	3.5 – 5.0

Source: "Highway Statistics"

STATUS AND COST OF THE INTERSTATE SYSTEM

Mr. CARR. Update the information appearing on page 693 of the 1994 hearing volume regarding the cost and status of the interstate system.

[The information follows:]

INTERSTATE SYSTEM - STATUS OF OPEN-TO-TRAFFIC MILEAGE

	Miles
Total open-to-traffic (as of Dec. 31, 1993)	42,741
Approximate breakdown:	
Complete to full standards or requires minor improvements	40,314
Toll mileage	2,232
Added lanes needed	148
Major upgrading needed	47

Open-to-traffic work includes some 195 miles which require further construction work eligible for Interstate Construction funding. There are 47 miles of segments requiring initial major upgrading such as reconstruction of pavements, bridges and interchanges and the addition of lanes to meet design year traffic and standards. Another 148 miles require added lanes (including high occupancy vehicle lanes eligible for Interstate Construction funding). The remaining 40,314 miles (not including toll mileage) are eligible for upgrading work with Interstate Maintenance or National Highway System funds.

COST OF THE INTERSTATE SYSTEM [1]

Item	Total	Federal-Aid funds
1,500-mile addition	3,375	3,308
Major system adjustments (decrease)	(4,620)	(4,158)
United Price increases	41,279	37,151
Added interchanges and grade separations	2,934	2,641
Added lanes	3,588	3,229
Upgraded roadway designs	4,610	4,149
Changed structure designs	4,598	4,138
Pavement overlays	375	338
Added landscaping, erosion control, rest areas	2,047	1,842
Safety on work underway	845	761
Safety on completed sections	1,020	918
Additional Preliminary Engineering	3,630	3,267
Right of Way and relocation increases	8,628	7,765
20-year design period	342	308
4-lane minimum requirement	335	302
Social, economic & environmental features	4,058	3,652
Mass transit, fringe parking	125	113
Miscellaneous - traffic increases, utility adjustments, added planning and research, FHWA research, more costly locations, project overruns, contingency items, et cetera	14,160	10,947
Total increases	91,330	80,400
1958 estimate	37,570	33,900
1991 estimate	128,900	114,300

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[1] This data is based on the 1991 Interstate Cost Estimate Report to Congress, the most recent data available, and is a repeat of the data in last year's report.

DEFICIENT BRIDGES

Mr. CARR. Update the information appearing on page 694–696 of the hearing volume concerning deficient bridges.

[The information follows:]

Count of Deficient Bridges by State
Nation Highway System (NHS)
As of December 1993

STATE	Bridges in Inventory	Non-Deficient Bridges	Structurally Deficient	Functionally Obsolete	Deficient Bridges	Percent Deficient	Rank* By %
Alabama	2,739	1,948	96	695	791	29%	33T
Alaska	324	259	24	41	65	20%	12T
Arizona	2,946	2,669	22	255	277	9%	2
Arkansas	2,091	1,640	93	358	451	22%	18
California	9,285	6,727	179	2,379	2,558	28%	28T
Colorado	2,069	1,603	110	356	466	23%	19T
Connecticut	1,708	1,190	181	337	518	30%	36
Delaware	264	183	12	69	81	31%	37
Dist. of Col	191	73	37	81	118	62%	50
Flordia	4,635	3,589	59	987	1,046	23%	19T
Georgia	2,768	2,218	77	473	550	20%	12T
Hawaii	313	163	16	134	150	48%	49
Idaho	813	605	31	177	208	26%	25T
Illinois	3,157	2,269	379	509	888	28%	28T
Indiana	3,164	2,630	139	395	534	17%	7T
Iowa	2,090	1,718	110	262	372	18%	9T
Kansas	2,942	2,215	141	586	727	25%	22T
Kentucky	1,886	1,500	37	349	386	20%	12T
Louisiana	2,577	1,866	154	557	711	28%	28T
Maine	530	374	44	112	156	29%	33T
Maryland	1,218	863	62	293	355	29%	33T
Massachusetts	2,314	830	248	1,236	1,484	64%	52
Michigan	2,525	1,707	440	378	818	32%	38T
Minnesota	1,765	1,518	143	104	247	14%	4
Mississippi	2,407	1,557	101	749	850	35%	44T
Missouri	2,626	2,009	213	404	617	23%	19T
Montana	1,257	944	16	297	313	25%	22T
Nebraska	1,305	1,093	134	78	212	16%	5T
Nevada	649	489	12	148	160	25%	22T
New Hampshire	636	458	62	116	178	28%	28T
New Jersey	2,593	1,581	453	559	1,012	39%	47
New Mexico	1,498	1,347	68	83	151	10%	3
New York	4,659	1,733	2,204	722	2,926	63%	51
North Carolina	2,696	1,837	369	490	859	32%	38T
North Dakota	609	562	20	27	47	8%	1
Ohio	4,940	3,635	408	897	1,305	26%	25T
Oklahoma	2,876	2,323	162	391	553	19%	11
Oregon	1,837	1,206	81	550	631	34%	42T
Pennsylvania	5,248	3,465	850	933	1,783	34%	42T
Rhode Island	364	206	52	106	158	43%	48
South Carolina	1,412	1,125	34	253	287	20%	12T
South Dakota	900	743	62	95	157	17%	7T
Tennessee	3,580	2,580	320	680	1,000	28%	28T
Texas	15,258	12,755	395	2,108	2,503	16%	5T
Utah	1,054	719	101	234	335	32%	38T
Vermont	459	310	18	131	149	32%	38T
Virginia	3,121	2,558	199	364	563	18%	9T
Washington	2,061	1,523	60	478	538	26%	25T
West Virginia	968	632	169	167	336	35%	44T
Wisconsin	2,882	2,288	466	128	594	21%	17
Wyoming	1,182	950	17	215	232	20%	12T
Puerto Rico	617	380	59	178	237	38%	46
TOTAL	124,008	91,365	9,939	22,704	32,643	26%	

* Number represents, least to most, the State deficiency ranking. "T" means a tie ranking.

Count of Deficient Bridges by State
Other Federal Aid Highway
As of December 1993

STATE	Bridges-in Inventory	Non-Deficient Bridges	Structurally Deficient	Functionally Obsolete	Deficient Bridges	Percent Deficient	Rank* By %
Alabama	5,064	3,544	773	747	1,520	30%	30
Alaska	342	284	25	33	58	17%	10
Arizona	2,077	1,918	46	113	159	8%	2
Arkansas	5,511	4,419	512	580	1,092	20%	17
California	6,716	4,941	406	1,369	1,775	26%	23T
Colorado	1,906	1,559	187	160	347	18%	11T
Connecticut	1,112	711	159	242	401	36%	36
Delaware	229	176	28	25	53	23%	19T
Dist. of Col.	34	13	8	13	21	62%	50
Flordia	2,564	1,898	85	581	666	26%	23T
Georgia	5,436	4,017	596	823	1,419	26%	23T
Hawaii	399	156	92	151	243	61%	49
Idaho	1,088	886	78	124	202	19%	13T
Illinois	7,778	6,005	1,077	696	1,773	23%	19T
Indiana	4,450	3,355	587	508	1,095	25%	21T
Iowa	5,168	4,161	502	505	1,007	19%	13T
Kansas	7,990	6,565	610	815	1,425	18%	11T
Kentucky	3,320	2,057	229	1,034	1,263	38%	39T
Louisiana	8,730	4,932	2,687	1,111	3,798	44%	43
Maine	769	457	103	209	312	41%	41
Maryland	645	391	67	187	254	39%	39T
Massachusetts	1,542	616	314	612	926	60%	48
Michigan	3,778	2,501	700	577	1,277	34%	34
Minnesota	3,647	3,068	418	161	579	16%	7T
Mississippi	7,241	4,552	2,106	583	2,689	37%	37T
Missouri	6,566	4,104	1,585	877	2,462	37%	37T
Montana	1,264	1,062	80	122	202	16%	7T
Nebraska	3,819	3,199	420	200	620	16%	7T
Nevada	238	207	15	16	31	13%	5
New Hampshire	563	375	90	98	188	33%	33
New Jersey	1,923	884	546	493	1,039	54%	46
New Mexico	1,503	1,219	152	132	284	19%	13T
New York	4,633	1,668	2,504	461	2,965	64%	51
North Carolina	3,382	2,190	633	559	1,192	35%	35
North Dakota	1,115	1,000	74	41	115	10%	3
Ohio	7,011	4,988	1,122	901	2,023	29%	28T
Oklahoma	7,779	5,565	1,657	557	2,214	28%	26T
Oregon	2,655	1,996	228	431	659	25%	21T
Pennsylvania	6,134	3,321	1,730	1,083	2,813	46%	44
Rhode Island	252	113	61	78	139	55%	47
South Carolina	3,077	2,439	190	448	638	21%	18
South Dakota	1,790	1,586	133	71	204	11%	4
Tennessee	5,554	3,786	815	953	1,768	32%	31T
Texas	14,202	12,048	640	1,514	2,154	15%	6
Utah	631	510	61	60	121	19%	13T
Vermont	838	483	161	194	355	42%	42
Virginia	4,253	2,875	485	893	1,378	32%	31T
Washington	2,123	1,499	106	518	624	29%	28T
West Virginia	2,373	1,183	600	590	1,190	50%	45
Wisconsin	3,813	2,750	895	168	1,063	28%	26T
Wyoming	727	683	17	27	44	6%	1
Puerto Rico	590	186	118	286	404	68%	52
TOTAL	175,754	124,915	27,395	23,444	50,839	29%	

* Number represents, least to most, the State deficiency ranking. "T" means a tie ranking.

Count of Deficient Bridges by State
Non Federal Aid Highways
As of December 1993

STATE	Bridges in Inventory	Non-Deficient Bridges	Structurally Deficient	Functionally Obsolete	Deficient Bridges	Percent Deficient	Rank* By %
Alabama	7,623	4,593	2,243	787	3,030	40%	30T
Alaska	186	107	44	35	79	42%	33T
Arizona	1,018	840	65	113	178	17%	1
Arkansas	5,018	2,587	1,722	709	2,431	48%	41T
California	6,490	4,529	787	1,174	1,961	30%	14T
Colorado	3,279	2,408	614	257	871	27%	11T
Connecticut	1,207	772	191	244	435	36%	22T
Delaware	252	184	37	31	68	27%	11T
Dist. of Col.	12	2	1	9	10	83%	52
Flordia	3,457	2,575	255	627	882	26%	9T
Georgia	6,074	3,909	1,705	460	2,165	36%	22T
Hawaii	347	184	50	113	163	47%	39T
Idaho	1,792	1,411	253	128	381	21%	4T
Illinois	13,925	10,210	2,698	1,017	3,715	27%	11T
Indiana	10,115	6,467	2,549	1,099	3,648	36%	22T
Iowa	17,605	11,536	3,852	2,217	6,069	34%	19
Kansas	14,563	8,416	3,698	2,449	6,147	42%	33T
Kentucky	7,737	4,923	1,338	1,476	2,814	36%	22T
Louisiana	2,378	1,544	484	350	834	35%	20T
Maine	1,042	632	196	214	410	39%	27T
Maryland	2,488	1,516	342	630	972	39%	27T
Massachusetts	1,181	581	298	302	600	51%	46
Michigan	3,948	2,439	1,150	359	1,509	38%	26
Minnesota	7,137	5,320	1,341	476	1,817	25%	7T
Mississippi	6,878	3,468	3,050	360	3,410	50%	44T
Missouri	13,805	6,082	6,671	1,052	7,723	56%	48
Montana	1,919	1,344	401	174	575	30%	14T
Nebraska	10,409	5,758	3,685	966	4,651	45%	37
Nevada	258	209	34	15	49	19%	2
New Hampshire	1,078	567	297	214	511	47%	39T
New Jersey	1,672	863	505	304	809	48%	41T
New Mexico	555	436	61	58	119	21%	4T
New York	8,007	2,761	4,924	322	5,246	66%	51
North Carolina	9,872	5,930	2,583	1,359	3,942	40%	30T
North Dakota	2,903	1,614	990	299	1,289	44%	36
Ohio	15,685	10,154	2,696	2,835	5,531	35%	20T
Oklahoma	12,179	5,533	5,963	683	6,646	55%	47
Oregon	2,030	1,509	294	227	521	26%	9T
Pennsylvania	10,933	5,636	3,077	2,220	5,297	48%	41T
Rhode Island	113	47	34	32	66	58%	49
South Carolina	4,459	3,576	711	172	883	20%	3
South Dakota	3,428	1,955	1,096	377	1,473	43%	35
Tennessee	9,421	6,330	2,113	978	3,091	33%	18
Texas	17,598	10,423	4,454	2,721	7,175	41%	32
Utah	985	739	183	63	246	25%	7T
Vermont	1,347	722	425	200	625	46%	38
Virginia	5,374	3,643	752	979	1,731	32%	17
Washington	2,655	2,068	215	372	587	22%	6
West Virginia	3,124	1,573	845	706	1,551	50%	44T
Wisconsin	6,402	4,410	1,750	242	1,992	31%	16
Wyoming	955	585	232	138	370	39%	27T
Puerto Rico	576	236	106	234	340	59%	50
TOTAL	272,918	165,620	73,954	33,344	107,298	39%	

* Number represents, least to most, the State deficiency ranking. "T" means a tie ranking.

IVHS RADIO FREQUENCY SPECTRUM SPACE

Mr. CARR. Undate the status of the IVHS radio frequency spectrum space issue as discussed on page 697 of the 1994 hearing volume.

[The information follows:]

The Federal Highway Administration (FHWA) has continued close liaison with both the National Telecommunications and Information Administration (NTIA) and the FCC concerning IVHS spectrum needs. In addition, IVHS AMERICA formed a Communications Spectrum Task Force (CSTF) to address spectrum issues. The FHWA is a participant on this task force, in addition to our role to develop DOT comments on relevant FCC issues.

The CSTF has prepared comments on behalf of the IVHS community on FCC dockets dealing with reallocation of spectrum, spectrum auctions, and proposed revisions to the allocation of spectrum in the band now shared by IVHS vehicle location and monitoring systems, electronic toll collection systems, and a host of non-IVHS systems such as cordless phones and garage door openers. In order to relieve some of the crowding in the band, and to provide international compatibility, the CSTF has also been working with NTIA to identify spectrum in the 5.8 GHz band that might be made available for IVHS service, providing a long-term solution to the congestion in the 902–928 MHz band.

ACCIDENT FATALITY RATES

Mr. CARR. Update the fatal accident rate information that appears on page 697 of the 1994 hearing volume:

[The information follows:]

FATAL ACCIDENT RATES

[Per 100 million miles of travel]

	Combination vehicles	Medium and heavy trucks	All vehicles
Year:			
1985	4.9	3.8	2.2
1986	4.7	3.7	2.2
1987	4.4	3.5	2.2
1988	4.4	3.5	2.1
1989	3.9	3.2	1.9
1990	3.7	3.0	1.9
1991	3.2	2.7	1.7
1992	2.9	2.5	1.6

Source: Vehicle Miles of Travel—Federal Highway Administration. Fatal Crashes—Fatal Accident Reporting System.

FEDERAL-AID HIGHWAY CONSTRUCTION PRICE TRENDS

Mr. CARR. Update the information on price trends for federal-aid highway construction depicted on page 699 of the 1994 hearing volume.

[The information follows:]

PRICE TRENDS FOR FEDERAL-AID HIGHWAY CONSTRUCTION

1987 Base

Year	Common excavation		Surfacing					Structures							Composite index
			Portland cement concrete [2]		Bituminous concrete		Surfacing index	Reinforcing steel		Structural steel		Structural concrete		Structures index	
	Average contract price (cu. yd.)	Index	Average contract price (sq. yd.)	Index	Average contract price (ton)	Index		Average contract price (lb.)	Index	Average contract price (lb.)	Index	Average contract price (cu. yd.)	Index		
1972	.72	29.7	6.42	43.6	9.23	37.5	39.5	.181	41.1	.342	38.6	100.17	41.6	40.7	38.6
1973	.80	33.0	7.00	47.5	10.02	40.7	42.9	.207	47.0	.372	42.0	111.81	46.4	45.4	42.5
1974	1.00	41.2	8.88	60.3	14.74	59.8	60.0	.339	76.9	.551	62.3	136.80	56.8	61.7	57.9
1975	1.03	42.5	8.88	60.3	15.13	61.4	61.0	.297	67.4	.554	62.6	138.76	57.6	60.6	58.1
1976	1.03	42.5	8.92	60.6	14.83	60.2	60.3	.258	58.5	.484	54.7	139.59	58.0	57.2	56.3
1977	1.16	47.8	9.95	67.5	15.47	62.8	64.3	.272	61.7	.520	58.8	143.51	59.6	59.7	59.8
1978	1.54	63.5	11.90	80.8	17.16	69.6	73.3	.316	71.7	.603	68.1	172.41	71.6	70.7	70.7
1979	1.62	66.8	14.02	95.2	21.21	86.1	89.0	.421	95.5	.759	85.8	211.33	87.8	88.6	85.5
1980	1.83	75.5	14.92	101.3	25.29	102.6	102.2	.483	109.6	.941	106.3	226.68	94.1	100.0	97.2
1981	1.76	72.6	14.17	96.2	25.63	104.0	101.4	.438	99.4	.790	89.3	231.64	96.2	94.9	94.2
1982	1.59	65.6	13.03	88.5	24.33	98.7	95.3	.407	92.4	.762	86.1	219.63	91.2	90.0	88.5
1983	1.74	71.8	12.69	86.1	24.27	98.5	94.4	.398	90.3	.708	80.0	213.85	88.8	86.7	87.6
1984	1.90	78.4	13.64	92.6	26.52	107.6	102.7	.409	92.8	.709	80.1	218.02	90.5	88.2	92.6
1985	2.24	92.4	14.31	97.1	28.52	115.7	109.6	.444	100.7	.796	89.9	243.60	101.2	98.1	102.0
1986	2.28	94.0	15.63	106.1	26.48	107.4	107.0	.442	100.3	.850	96.0	236.37	98.2	98.0	101.1
1987	2.42	100.0	14.80	100.0	24.65	100.0	100.0	.441	100.0	.885	100.0	240.81	100.0	100.0	100.0
1988..															
First quarter	3.35	138.2	15.22	103.3	26.09	105.9	105.0	.505	114.6	.899	101.6	296.05	122.9	115.9	114.8
Second quarter	2.17	89.5	13.42	91.1	23.21	94.2	93.2	.474	107.6	.882	99.7	261.42	108.6	106.0	98.3
Third quarter	3.08	127.0	14.58	99.0	24.53	99.5	99.3	.500	113.5	.977	110.4	281.85	117.0	114.7	110.3
Four quarter	2.63	108.5	14.38	97.6	26.33	106.8	103.8	.493	111.9	.950	107.3	260.82	108.3	108.7	106.6
Annual	2.72	112.2	14.33	97.3	24.91	101.1	99.8	.494	112.1	.924	104.4	274.12	113.8	111.0	106.6
1989:															
First quarter	2.44	100.6	15.80	107.3	23.14	93.9	98.3	.612	138.9	1.091	123.3	312.62	129.8	129.6	112.4
Second quarter	2.28	94.0	15.42	104.7	23.50	95.3	98.4	.500	113.5	1.008	113.9	262.95	109.2	111.2	103.4
Third quarter	2.22	91.6	14.80	100.5	25.08	101.8	101.3	.615	139.5	.946	106.9	299.35	124.3	122.3	109.1
Fourth quarter	2.81	115.9	14.85	100.8	24.48	99.3	99.8	.485	110.0	1.063	120.1	257.49	106.9	110.9	107.1
Annual	2.40	99.0	15.17	103.0	24.08	97.7	99.4	.556	126.2	1.018	115.0	283.40	117.7	118.4	107.7
1990:															
First quarter	2.54	104.7	16.01	108.7	24.44	99.2	102.3	.592	134.4	1.023	115.5	291.00	120.8	121.8	111.2
Second quarter	2.55	105.0	15.55	105.6	23.71	96.2	99.3	.500	113.5	0.941	106.4	277.41	115.2	112.6	106.0
Third quarter	2.29	94.3	16.08	109.2	24.17	98.1	101.7	.551	125.0	0.978	110.5	301.76	125.3	121.4	109.2
Fourth quarter	2.18	89.9	17.34	117.7	26.21	106.3	110.1	.475	107.8	1.099	124.1	265.51	110.3	113.5	108.5
Annual	2.38	98.1	15.91	108.0	24.52	99.5	102.3	.529	120.0	1.010	114.1	286.18	118.8	117.8	108.5
1991:															
First quarter	2.22	91.5	15.96	108.4	27.13	110.1	109.5	.556	126.1	1.184	133.8	296.59	123.2	126.5	114.3
Second quarter	2.24	92.2	16.16	109.7	26.07	105.8	107.1	.525	119.2	1.104	124.8	296.79	123.2	123.0	111.8
Third quarter	2.44	100.8	17.33	117.6	24.05	97.6	104.2	.509	115.4	.963	108.8	269.55	111.9	111.7	107.0
Fourth quarter	2.38	98.1	17.14	116.4	24.49	99.4	105.0	.453	102.7	.922	104.2	221.58	92.0	97.1	100.4
Annual	2.32	95.5	16.58	112.5	25.52	103.6	106.5	.505	114.6	1.030	116.4	264.98	110.0	112.5	107.5
1992:															
First quarter	2.13	87.8	17.08	116.0	25.31	102.7	107.0	.470	106.6	.869	98.2	255.52	106.1	104.1	102.9
Second quarter	2.27	93.5	18.24	123.9	24.55	99.6	107.6	.482	109.4	1.003	113.3	299.19	124.2	118.8	110.4
Third quarter	2.28	94.0	17.73	120.4	23.19	94.1	102.7	.599	136.0	.864	97.7	214.51	89.1	99.3	99.9
Fourth quarter	1.93	79.5	18.23	123.8	25.27	102.5	109.5	.485	110.0	.901	101.8	291.09	120.9	114.0	107.0
Annual	2.20	90.8	17.80	120.8	24.66	100.1	106.9	.520	117.9	.916	103.5	259.61	107.8	108.4	105.1
1993:															
First quarter	2.60	107.2	18.37	124.7	25.13	102.0	109.4	.465	105.5	.974	110.0	271.18	112.6	110.7	109.7
Second quarter	2.74	113.1	17.99	122.1	24.46	99.2	106.7	.489	111.0	.851	96.2	278.13	115.5	109.6	109.0
Third quarter	2.31	95.3	17.54	119.1	29.06	117.9	118.3	.450	102.2	.826	93.3	247.72	102.9	100.2	106.9
Fourth quarter	2.40	98.9	21.36	146.4	27.25	110.6	122.3	.466	105.8	.846	95.5	254.45	105.7	103.0	110.3
Annual	2.50	103.2	18.81	127.7	26.26	106.6	113.5	.467	106.0	.861	97.3	261.89	108.7	105.3	108.3

CONSTRUCTION INDUSTRY UNEMPLOYMENT RATES

Mr. CARR. Update the information on construction industry unemployment rates shown on page 700 of the 1994 hearing volume.

[The information follows:]

Unemployment rate in the construction industry

Annual:	
1975	18.1
1976	15.7
1977	12.7
1978	10.6
1979	10.2
1980	14.1
1981	15.6
1982	20.0
1983	18.4
1984	14.3
1985	13.1
1986	13.1
1987	11.6
1988	10.6
1989	10.0
1990	11.1
1991	15.4
1992	16.7
1993	14.3
January	14.7
February	14.3
March	15.3
April	14.7
May	15.2
June	15.1
July	15.7
August	14.7
September	14.1
October	13.7
November	12.2
December	12.7

Source: From Monthly Labor Review, Bureau of Labor Statistics (BLS). Monthly data seasonally adjusted. The BLS does not make projections of future unemployment levels.

COST TRENDS AND CAPACITY IN THE CONSTRUCTION INDUSTRY

Mr. CARR. Update the information on cost trends and capacity in the construction industry depicted on page 700 of the 1994 hearing volume.

[The information follows:]

EXCESS CAPACITY IN HIGHWAY CONSTRUCTION INDUSTRY [1]

[Amounts in billions of dollars]

	1993	1992	1991	1990	1989	1988	1987
Average number bidders:							
Federal-aid except secondary	5.0	5.1	4.9	4.6	4.8	4.8	4.5
Percent unemployment	14.3	16.7	15.4	11.1	10.0	10.6	11.6
Federal-aid amounts including secondary	9.6	11.0	10.7	10.0	11.9	11.8	11.9
Constant 1972 dollars deflated by FHWA bid price index	3.4	4.0	3.8	3.6	4.2	4.1	4.4

[1] During 1992–1993 transition following enactment of the Intermodal Surface Transportation Efficiency Act, the data includes federal-aid contracts on the National Highway System and all pre-ISTEA federal-aid contracts except federal-aid secondary and off-system contracts.

FEDERAL-AID HIGHWAY OBLIGATIONS

Mr. CARR. Provide a table showing fiscal years 1993 and 1994 federal-aid highways obligation by program similar to the material on pages 706–707 of the 1994 hearing volume.

[The information follows:]

The following tables display actual fiscal year 1993 obligations for fiscal year 1993 as of March 31, 1993 and fiscal year 1994 obligations for federal-aid highways by program.

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF OBLIGATIONS OF FEDERAL-AID HIGHWAY FUNDS APPORTIONED OR ALLOCATED TO STATES

DURING FISCAL YEAR 1993

AS OF MARCH 31, 1993

FUND	OBLIGATIONS
FEDERAL-AID HIGHWAY ACCOUNT	
SUMMARY - BY STATE	7,902,018,451.55
INTERSTATE	
INTERSTATE CONSTRUCTION	294,704,986.94
INTERSTATE GAP CLOSING	
INTERSTATE DISCRETIONARY CONSTRUCTION	89,153,021.30
INTERSTATE 4R DISCRETIONARY - 056	555,884.42CR
INTERSTATE MAINTENANCE	1,239,875,397.98
INTERSTATE 4R	28,403,265.06
INTERSTATE 4R - MO I-83	
INTERSTATE 4R NHS DISCRETIONARY	12,998,943.00
INTERSTATE - TOTAL	1,662,680,739.54
PRIMARY, SECONDARY, URBAN, AND BRIDGE	
CONSOLIDATED PRIMARY	30,182,490.70
RURAL SECONDARY	12,828,442.28
URBAN SYSTEM	30,305,891.18
SPECIAL BRIDGE REPLACEMENT	22,822.42CR
BRIDGE REPLACEMENT AND REHABILITATION - APPORTIONED	1,018,284,141.09
BRIDGE REPLACEMENT AND REHABILITATION - DISCRETIONARY	43,489,770.88
ACCELERATION OF BRIDGES	
URGENT SUPPLEMENTAL APPN. ACT BRIDGES	
PRIMARY, SECONDARY, URBAN, AND BRIDGE - TOTAL	1,132,888,112.72
STP, NHS, AND DONOR STATE PROGRAMS	
SURFACE TRANSPORTATION PROGRAMS - TOTAL	2,009,138,951.53
NATIONAL HIGHWAY SYSTEMS - TOTAL	2,010,480,840.31
DONOR STATE BONUS - TOTAL	71,398,108.84
SAFETY CONSTRUCTION	
HAZARD ELIMINATION	18,081,460.31
RAIL-HIGHWAY CROSSINGS ON ANY PUBLIC ROAD	11,163,218.03
SAFETY CONSTRUCTION - TOTAL	27,334,678.34
FEDERAL LANDS	
FOREST HIGHWAYS	
INDIAN RESERVATION ROADS	
PARK ROADS AND PARKWAYS	
PUBLIC LANDS	921,414.20
FEDERAL LANDS - TOTAL	921,414.20
OTHER	
2 PERCENT HPR	122,134,907.70
25 PERCENT HPR RD & TT	48,428,473.31
1 1/2 PERCENT HPR	13,288,224.34
METROPOLITAN PLANNING	82,778,488.37
URBAN HIGH DENSITY	8,789,704.80
MINIMUM ALLOCATION	188,069,638.48
INTERSTATE TRANSFERS	47,048,588.20
FRANCONIA NOTCH	
DEMONSTRATION PROJECTS, SEC 121, 1982 STAA	488,265.78CR
UNION STATION, DIST. OF COL.	
BYPASS HIGHWAY	
ACOSTA AND TALMADGE BRIDGES	
DEMONSTRATION PROJECTS 149 (B,C,D)	42,488,428.34
STUDIES (SECTIONS 158, 158, 164, 165, & 167)	
COMBINED ROAD PLAN	2,381,893.88
CONGESTION AIR QUALITY	190,701,763.90
HIGH COST BRIDGE	1,704,148.00
HIGH PRIORITY CORRIDOR	40,188,883.00
INNOVATIVE PROJECTS	158,081,801.31
PRIORITY INTERMODAL SEC 1108	11,588,188.00
CONGESTION RELIEF PROJECTS	8,988,381.00
RURAL ACCESS PROJECTS	28,188,291.28
URBAN ACCESS & MOBILITY PROJECTS	4,482,238.00
OTHER - TOTAL	1,012,788,772.12
TOTAL FEDERAL-AID ACCOUNT	7,902,018,451.55

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

TABLE 1

SUMMARY OF
OBLIGATIONS OF FEDERAL-AID HIGHWAY FUNDS
APPORTIONED OR ALLOCATED TO STATES

DURING FISCAL YEAR 1994

AS OF FEBRUARY 28, 1994

LF07M57A

TABLE NO.	FUND	OBLIGATIONS
	FEDERAL-AID HIGHWAY ACCOUNT	
1-02	SUMMARY - BY STATE	7,888,958,724.02
	INTERSTATE	
1-03	INTERSTATE CONSTRUCTION	272,511,938.13
1-03	INTERSTATE GAP CLOSING	2,363,840.09CR
1-03	INTERSTATE DISCRETIONARY CONSTRUCTION	8,516,076.12CR
1-03	INTERSTATE 4R DISCRETIONARY - 056	2,068,949.17CR
1-04	INTERSTATE MAINTENANCE	1,182,357,202.87
1-04	INTERSTATE 4R	25,176,557.50CR
1-04	INTERSTATE 4R - NO I-83	35,486.00CR
1-04	INTERSTATE 4R NHS DISCRETIONARY	20,147,571.00
1-04	INTERSTATE - TOTAL	1,436,865,803.12
	PRIMARY, SECONDARY, URBAN, AND BRIDGE	
1-05	CONSOLIDATED PRIMARY	1,476,674.01CR
1-05	RURAL SECONDARY	3,457,328.64
1-06	URBAN SYSTEM	20,380,014.29
1-07	SPECIAL BRIDGE REPLACEMENT	164.85CR
1-07	BRIDGE REPLACEMENT AND REHABILITATION - APPORTIONED	865,631,252.32
1-08	BRIDGE REPLACEMENT AND REHABILITATION - DISCRETIONARY	47,161,684.76
1-08	ACCELERATION OF BRIDGES	
1-08	URGENT SUPPLEMENTAL APPN. ACT BRIDGES	.20
1-08	PRIMARY, SECONDARY, URBAN, AND BRIDGE - TOTAL	935,153,441.35
	STP, NHS, AND DONOR STATE PROGRAMS	
1-11	SURFACE TRANSPORTATION PROGRAMS - TOTAL	2,352,149,908.35
1-02	NATIONAL HIGHWAY SYSTEMS - TOTAL	1,803,743,947.60
1-12	DONOR STATE BONUS - TOTAL	113,492,941.72
	SAFETY CONSTRUCTION	
1-13	HAZARD ELIMINATION	11,046,067.21
1-13	RAIL-HIGHWAY CROSSINGS ON ANY PUBLIC ROAD	1,805,223.46
1-13	SAFETY CONSTRUCTION - TOTAL	12,851,290.67
	FEDERAL LANDS	
1-14	FOREST HIGHWAYS	
1-14	INDIAN RESERVATION ROADS	
1-14	PARK ROADS AND PARKWAYS	
1-14	PUBLIC LANDS	889,776.11CR
1-14	FEDERAL LANDS - TOTAL	889,776.11CR
	OTHER	
1-15	2 PERCENT HPR	157,307,568.45
1-15	25 PERCENT HPR RD & TT	45,526,923.06
1-15	1 1/2 PERCENT HPR	2,864,684.85
1-15	METROPOLITAN PLANNING	71,723,168.87
1-15	URBAN HIGH DENSITY	128,823.05CR
1-17	MINIMUM ALLOCATION	235,334,737.13
1-17	INTERSTATE TRANSFERS	15,554,028.41
1-17	FRANCONIA NOTCH	
1-18	DEMONSTRATION PROJECTS, SEC 131, 1982 STAA	678,888.17
1-18	UNION STATION, DIST. OF COL.	
1-18	BYPASS HIGHWAY	
1-18	ACOSTA AND TALMADGE BRIDGES	
1-19	DEMONSTRATION PROJECTS 149 (B,C,D)	43,528,512.30
1-20	STUDIES (SECTIONS 158, 159, 164, 165, & 167)	
1-20	COMBINED ROAD PLAN	5,861,107.73CR
1-02	CONGESTION AIR QUALITY	261,518,953.30
1-20	HIGH COST BRIDGE	54,374,564.36
1-20	HIGH PRIORITY CORRIDOR	45,548,946.80
1-20	INNOVATIVE PROJECTS	164,591,832.51
1-21	PRIORITY INTERMODAL SEC 1108	23,101,179.19
1-21	CONGESTION RELIEF PROJECTS	9,199,855.00
1-21	RURAL ACCESS PROJECTS	44,220,361.84
1-21	URBAN ACCESS & MOBILITY PROJECTS	53,014,838.00
1-21	OTHER - TOTAL	1,235,591,167.32
1-02	TOTAL FEDERAL-AID ACCOUNT	7,888,958,724.02

REDISTRIBUTION OF UNOBLIGATED FEDERAL-AID AUTHORITY

Mr. CARR. Provide detail by state of the redistribution of unobligated authority under the federal-aid program made in August 1993.

[The information follows:]

REDISTRIBUTION OF FY 1993 OBLIGATION AUTHORITY AND ADDITIONAL AUTHORITY AVAILABLE

STATE	REDISTRIBUTION PER SECTION 310(c)(2)	BONUS PER SECTION 310(e)	TOTAL
ALABAMA	2,693,534	2,354,539	5,048,073
ALASKA	1,606,930	1,627,425	3,234,355
ARIZONA	4,143,908	2,708,714	6,852,622
ARKANSAS	1,572,266	1,427,380	2,999,646
CALIFORNIA	18,906,778	14,638,838	33,545,616
COLORADO	2,698,964	2,066,735	4,765,699
DELAWARE	1,642,032	1,000,229	2,642,261
FLORIDA	5,304,835	4,847,455	10,152,290
GEORGIA	7,592,845	5,173,940	12,766,785
IDAHO	708,700	800,837	1,509,537
ILLINOIS	3,816,046	4,376,131	8,192,177
INDIANA	4,069,828	3,197,406	7,267,234
IOWA	3,155,550	2,272,294	5,427,844
KANSAS	4,633,100	2,804,700	7,437,800
KENTUCKY	2,764,689	2,253,068	5,017,757
LOUISIANA	11,244,137	5,863,139	17,107,276
MAINE	984,865	798,457	1,783,322
MARYLAND	4,035,311	2,852,838	6,888,149
MASSACHUSETTS	36,727,829	20,136,224	56,864,053
MICHIGAN	5,219,957	4,136,405	9,356,362
MINNESOTA	5,655,439	3,620,385	9,275,824
MISSISSIPPI	3,466,110	2,264,693	5,730,803
MISSOURI	3,732,706	3,182,892	6,915,598
MONTANA	2,781,886	1,901,247	4,683,133
NEBRASKA	2,184,739	1,539,472	3,724,211
NEVADA	1,375,343	1,046,018	2,421,361
NEW HAMPSHIRE	2,339,731	1,346,779	3,686,510
NEW JERSEY	7,204,191	5,243,973	12,448,164
NEW MEXICO	651,144	1,077,959	1,729,103
NEW YORK	11,780,392	9,156,273	20,936,665
NORTH CAROLINA	5,690,760	4,149,481	9,840,241
NORTH DAKOTA	958,227	874,246	1,832,473
OHIO	9,036,241	6,364,228	15,400,469
OKLAHOMA	5,572,368	3,319,947	8,892,315
OREGON	1,410,959	1,506,150	2,917,109
PENNSYLVANIA	12,672,127	8,435,046	21,107,173
RHODE ISLAND	2,136,203	1,376,902	3,513,105
SOUTH CAROLINA	6,655,252	3,733,496	10,388,748
SOUTH DAKOTA	2,037,982	1,359,758	3,397,740
TENNESSEE	5,016,251	3,597,217	8,613,468
TEXAS	17,056,698	11,835,839	28,892,537
UTAH	2,976,336	1,814,620	4,790,956
VERMONT	2,703,604	0	2,703,604
VIRGINIA	5,075,226	3,567,115	8,642,341
WASHINGTON	6,634,309	4,249,148	10,883,457
WEST VIRGINIA	4,434,698	2,573,394	7,008,092
WISCONSIN	3,757,165	2,908,193	6,665,358
WYOMING	1,177,100	1,003,574	2,180,674
PUERTO RICO	3,083,569	1,655,402	4,738,971
TOTAL	262,778,860	180,040,201	442,819,061

MISCELLANEOUS PROGRAMS

Mr. CARR. Provide a breakdown of budget authority and obligations under miscellaneous programs for fiscal years 1994 and 1995.

[The information follows:]

Miscellaneous Programs
(amounts in thousands of dollars)

	FY 1994		FY 1995	
	Budget Auth.	Obligations	Budget Auth.	Obligations
Programs Authorized Prior to ISTEA				
Consolidated Primary	0	41,197	0	0
Rural Secondary	0	47,273	0	0
Urban Systems	0	154,045	0	0
Planning	0	147,354	0	0
Hazard Elimination	0	41,799	0	0
Rail/Highway Crossings	0	38,790	0	0
Combined Road Plan	0	2,554	0	0
Programs Authorized Under ISTEA				
Ferry Boat Construction	17,000	18,655	17,000	17,000
Scenic Byways Technical Assistance	4,000	7,456	14,000	14,000
Interim Scenic Byways	10,000	10,020	0	0
University Transportation Centers	6,000	6,000	6,000	6,000
University Research Institutes	6,250	6,250	6,250	6,250
Tax Evasion	5,000	5,000	5,000	5,000
Bureau of Transportation Statistics	15,000	19,800	15,000	15,000
Safety Belt/Helmet Incentives	0	66	0	0
P.L. 103-122 Rescissions	(564)	0	0	0
Total	**62,686**	**546,259**	**63,250**	**63,250**

INTERSTATE WITHDRAWALS

Mr. Carr. Update the information appearing on page 709 of the 1994 hearing volume concerning interstate withdrawals. Indicate the assumptions made for the program as of September 30, 1994.

[The information follows:]

ESTIMATED FEDERAL FUNDS REQUIRED TO COMPLETE SUBSTITUTE HIGHWAY PROJECTS AS OF SEPTEMBER 30, 1994

STATE	WITHDRAWAL AREA	ESTIMATED ADDITIONAL FUNDS REQUIRED TO COMPLETE SUBSTITUTE HIGHWAY PROJECTS (1)	ESTIMATED FISCAL YEAR 1995 APPORTIONMENTS (2)
Arizona	Tucson	92,688	81,008
California	San Francisco	9,388,648	8,205,495
	Sacramento	0	0
Connecticut	Bolton to Killingly	78,286,792	68,421,131
	Hartford-New Britain	2,505,756	2,189,982
Washington, DC	Washington	610,585	533,639
Georgia	Atlanta	4,976,445	4,349,316
Illinois	Chicago	0	0
Indiana	Indianapolis	0	0
Iowa	Waterloo	0	0
Maryland	Baltimore	12,179,021	10,644,227
	Bowie-Millersville	3,238,892	2,830,728
	Washington	370,718	324,000
Massachusetts	Boston	7,584	6,628
	Fall River to Providence	605,684	529,356
Minnesota	Minneapolis-St. Paul	0	0
New Jersey	New York City	1,835,299	1,604,016
	New York City-Trenton	10,821,521	9,457,798
New York	Albany	0	0
	New York City	92,578,764	80,912,036
Ohio	Cleveland	0	0
Oregon	Portland	0	0
Rhode Island	Rhode Island	31,212,881	27,279,450
Tennessee	Memphis	10,983,300	9,599,190
	Totals	259,694,578	226,968,000

(1) Amounts are in federal funds and assume full obligation of the fiscal year 1994 apportionments and prior year discretionary allocations and formula apportionments.

(2) Shifting of funds due to fund lapses, reapportionments and transfers between areas may change individual withdrawal area needs. An update of this estimate before the [illegible] 1995 apportionment may change the highway and transit split.

DISCRETIONARY FUNDS

Mr. CARR. Update the information appearing on page 710 of the 1994 hearing volume regarding discretionary funds.

[The information follows:]

U.S. DEPARTMENT OF TRANSPORTATION-FEDERAL HIGHWAY ADMINISTRATION-FEDERAL-AID

DISCRETIONARY FUNDS

	Fiscal year 1993		Fiscal year 1994 1/	
	Authorizations	Obligations	Authorizations	Obligations
Discretionary Interstate Construction	100,000,000	297,601,418	100,000,000	31,931,590
Discretionary Interstate 4R	64,000,000	54,240,000	64,000,000	20,147,571
Discretionary Interstate Substitution	0	57,996	0	19,480,478
Bridge Discretionary	68,000,000	61,319,299	81,832,959	47,273,261
Emergency Relief 2/	275,000,000	383,843,144 3/	1,365,000,000	172,162,915
TOTAL	507,000,000	797,061,857	1,610,832,959	290,995,815

1/ As of February 28, 1994

2/ Includes Emergency Relief, Midwest Floods and California Earthquakes

3/ Obligation amount reflects amounts authorized in previous fiscal years for the Loma Prieta Earthquake.

STATE APPORTIONMENT OF HIGHWAY BRIDGE FUNDS

Mr. CARR. Update the table shown on page 711 of the 1994 hearing volume regarding the apportionment of highway bridge funds by state.

[The information follows:]

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPORTIONMENT OF HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION FUNDS

STATE	APPORTIONMENT FOR FISCAL YEAR 1990	APPORTIONMENT FOR FISCAL YEAR 1991	APPORTIONMENT FOR FISCAL YEAR 1992	APPORTIONMENT FOR FISCAL YEAR 1993	APPORTIONMENT FOR FISCAL YEAR 1994
ALABAMA .	29,204,789	28,966,313	35,028,540	39,663,738	36,060,188
ALASKA	3,383,818	3,408,588	5,310,928	6,396,264	6,362,426
ARIZONA	3,383,818	3,408,588	5,310,928	6,396,264	5,889,676
ARKANSAS	16,918,415	17,878,723	28,469,789	34,041,298	27,826,804
CALIFORNIA	43,909,509	44,387,854	126,880,178	158,443,617	163,322,937
COLORADO	13,709,337	12,747,163	19,654,468	24,279,190	23,891,670
CONNECTICUT	60,089,710	68,881,145	80,839,609	73,659,874	68,445,439
DELAWARE	3,977,069	3,893,289	5,364,573	6,460,871	6,426,692
DIST. OF COL.	10,705,183	9,504,778	11,443,063	14,286,279	13,375,488
FLORIDA	22,395,734	24,028,224	40,985,489	46,348,600	45,325,661
GEORGIA	27,594,091	26,846,035	34,215,247	43,586,590	44,265,510
HAWAII	4,458,113	3,685,365	13,432,462	14,640,076	18,162,602
IDAHO	3,383,818	3,408,588	5,521,240	6,821,231	6,362,426
ILLINOIS	39,567,529	39,427,541	68,276,637	84,475,636	92,347,447
INDIANA	22,948,514	22,832,492	29,491,204	35,064,442	35,288,193
IOWA	24,626,618	25,053,118	29,287,853	38,325,383	38,404,615
KANSAS	25,850,206	24,795,838	33,790,457	40,523,652	40,698,905
KENTUCKY	27,050,920	27,181,167	27,963,159	33,994,521	33,838,846
LOUISIANA	31,172,140	27,966,506	40,916,021	49,476,117	51,697,756
MAINE	8,431,799	8,365,355	14,143,849	13,494,836	15,234,954
MARYLAND	17,446,967	16,823,288	31,726,943	41,513,167	51,965,715
MASSACHUSETTS	69,919,297	77,164,422	97,671,922	121,070,765	111,064,287
MICHIGAN	30,913,481	30,042,199	57,153,438	70,490,398	70,999,062
MINNESOTA	16,871,718	17,128,152	25,623,525	27,319,718	25,285,803
MISSISSIPPI	20,108,679	19,277,607	32,795,401	42,467,092	40,984,451
MISSOURI	54,730,554	53,738,972	59,934,726	82,649,536	85,667,801
MONTANA	7,044,027	7,063,548	8,215,155	9,997,871	10,159,520
NEBRASKA	16,335,180	16,959,632	20,947,147	26,106,987	26,293,103
	3,383,818	3,408,588	5,310,928	6,396,263	6,362,426
NEW HAMPSHIRE	7,310,266	7,593,515	11,946,046	12,571,822	12,344,133
NEW JERSEY	59,711,535	61,153,196	114,045,028	136,151,754	118,584,031
NEW MEXICO	4,469,483	4,413,439	5,658,475	6,915,384	7,001,976
NEW YORK	135,352,733	136,343,500	212,437,091	255,850,512	254,496,994
NORTH CAROLINA	27,829,334	27,500,348	46,222,275	62,223,100	64,883,245
NORTH DAKOTA	4,981,251	4,926,363	5,310,928	6,396,263	6,362,426
OHIO	42,373,527	41,726,156	90,861,275	105,276,283	103,966,392
OKLAHOMA	31,363,665	29,137,833	35,166,411	43,331,867	41,707,731
OREGON	7,449,814	7,903,015	25,167,848	30,574,649	35,762,427
PENNSYLVANIA	119,536,766	122,903,439	208,975,868	258,434,860	257,067,670
RHODE ISLAND	3,383,818	3,408,588	10,069,089	14,913,527	16,900,891
SOUTH CAROLINA	11,397,377	10,592,663	19,010,330	24,476,366	27,363,825
SOUTH DAKOTA	6,693,193	6,507,403	8,706,948	10,165,709	9,158,584
TENNESSEE	36,960,635	34,758,457	48,183,951	60,299,831	60,741,749
TEXAS	53,207,159	51,647,054	86,169,205	100,105,095	99,605,543
UTAH	3,383,818	3,408,587	5,310,928	9,150,494	9,866,085
VERMONT	7,589,769	7,627,055	10,722,065	13,267,529	13,542,839
VIRGINIA	29,839,864	30,634,748	48,962,887	49,328,754	49,746,193
WASHINGTON	30,889,930	33,849,183	48,355,568	56,042,264	54,655,521
WEST VIRGINIA	38,945,177	37,858,363	52,822,161	58,536,013	54,357,216
WISCONSIN	24,048,526	23,312,284	29,571,881	34,038,608	33,644,757
WYOMINNG	3,383,818	3,408,587	5,310,928	6,396,263	6,362,426
PUERTO RICO	3,911,017	4,548,146	11,701,850	16,927,742	16,710,684
TOTAL	1,353,527,326	1,363,435,000	2,136,393,915	2,569,764,965	2,556,843,741

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPORTIONMENT OF HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION FUNDS

STATE	APPORTIONMENT FOR FISCAL YEAR 1991	APPORTIONMENT FOR FISCAL YEAR 1992	APPORTIONMENT FOR FISCAL YEAR 1993	APPORTIONMENT FOR FISCAL YEAR 1994
ALABAMA	28,966,313	35,028,540	39,663,738	36,060,188
ALASKA	3,408,588	5,310,928	6,396,264	6,362,426
ARIZONA	3,408,588	5,310,928	6,396,264	5,889,676
ARKANSAS	17,878,723	28,469,789	34,041,298	27,826,804
CALIFORNIA	44,387,854	126,880,178	158,443,617	163,322,937
COLORADO	12,747,163	19,654,468	24,279,190	23,891,670
CONNECTICUT	68,881,145	80,839,609	73,659,874	68,445,439
DELAWARE	3,893,289	5,364,573	6,460,871	6,426,692
FLORIDA	24,028,224	40,985,489	46,348,600	45,325,661
GEORGIA	26,846,035	34,215,247	43,586,590	44,265,510
HAWAII	3,685,365	13,432,462	14,640,076	18,162,602
IDAHO	3,408,588	5,521,240	6,821,231	6,362,426
ILLINOIS	39,427,541	68,276,637	84,475,636	92,347,447
INDIANA	22,832,492	29,491,204	35,064,442	35,288,193
IOWA	25,053,118	29,287,853	38,325,383	38,404,615
KANSAS	24,795,838	33,790,457	40,523,662	40,698,905
KENTUCKY	27,181,167	27,963,159	33,994,521	33,838,846
LOUISIANA	27,966,506	40,916,021	49,476,117	51,697,756
MAINE	8,365,355	14,143,849	13,494,836	15,234,954
MARYLAND	16,823,288	31,726,943	41,513,167	51,965,715
MASSACHUSETTS	77,164,422	97,671,922	121,070,765	111,064,287
MICHIGAN	30,042,199	57,153,438	70,490,398	70,999,062
MINNESOTA	17,128,152	25,623,525	27,319.718	25,285,803
MISSISSIPPI	19,277,607	32,795,401	42,467,092	40,984,451
MISSOURI	53,738,972	59,934,726	82,649,536	85,667,801
MONTANA	7,063,548	8,215,155	9,997,871	10,159,520
NEBRASKA	16,959,632	20,947,147	26,106,987	26,293,103
NEVADA	3,408,588	5,310,928	6,396,263	6,362,426
NEW HAMPSHIRE	7,593,515	11,946,046	12,571,822	12,344,133
NEW JERSEY	61,153,196	114,045,028	136,151,754	118,584,031
NEW MEXICO	4,413,439	5,659,475	6,915,384	7,001,976
NEW YORK	136,343,500	212,437,091	255,850,512	254,496,994
NORTH CAROLINA	27,500,348	46,222,275	62,223,100	64,883,245
NORTH DAKOTA	4,926,363	5,310,928	6,396,263	6,362,426
OHIO	41,726,156	90,861,275	105,276,283	103,966,392
OKLAHOMA	29,137,833	35,166,411	43,331,867	41,707,731
OREGON	7,903,015	25,167,848	30,574,649	35,762,427
PENNSYLVANIA	122,903,439	208,975,868	258,434,860	257,067,670
RHODE ISLAND	3,408,588	10,069,089	14,913,627	16,900,891
SOUTH CAROLINA	10,592,663	19,010,330	24,476,366	27,363,825
SOUTH DAKOTA	6,507,403	8,706,948	10,165,709	9,158,584
TENNESSEE	34,758,457	48,183,951	60,299,831	60,741,749
TEXAS	51,647,054	86,169,205	100,105,095	99,605,543
UTAH	3,408,587	5,310,928	9,150,494	9,866,085
VERMONT	7,627,055	10,722,065	13,267,529	13,542,839
VIRGINIA	30,634,748	48,962,887	49,328,754	49,746,193
WASHINGTON	33,849,183	48,355,568	56,042,264	54,655,521
WEST VIRGINIA	37,858,363	52,822,161	58,536,013	54,357,216
WISCONSIN	23,312,284	29,571,881	34,038,608	33,644,757
WYOMING	3,408,587	5,310,928	6,396,263	6,362,426
DIST. OF COL.	9,504,778	11,443,063	14,286,279	13,375,488
PUERTO RICO	4,548,146	11,701,850	16,927,742	16,710,684
TOTAL	1,363,435,000	2,136,393,915	2,569,764,965	2,556,843,741

MINIMUM ALLOCATION, DONOR STATE BONUS, HOLD HARMLESS, EMERGENCY RELIEF DATA

Mr. Carr. Update the information appearing on pages 713–717 of the 1994 hearing volume regarding historical data for minimum allocation, donor state bonus, hold harmless, and emergency relief funding.

[The information follows:]

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MINIMUM ALLOCATION
FY 1988 THRU FY 1994

STATE	FY 1988	FY 1989	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994
ALABAMA	0	0	0	0	24,283,712	23,063,301	32,169,869
ARIZONA	9,986,271	0	41,144,624	37,499,684	48,943,184	35,588,129	35,822,806
ARKANSAS	14,442,230	28,621,158	33,719,189	30,350,883	48,853,490	30,859,557	33,203,236
CALIFORNIA	71,490,780	78,378,002	198,048,468	81,354,284	135,126,746	146,143,270	189,625,109
FLORIDA	22,763,026	90,821,023	15,909,057	145,969,063	159,082,913	135,967,289	161,433,342
GEORGIA	38,214,530	87,515,537	109,939,046	101,317,077	80,121,375	61,884,629	70,827,291
ILLINOIS	0	0	0	0	0	0	0
INDIANA	77,349,223	106,807,602	75,527,506	78,543,743	81,219,913	48,441,208	50,565,606
KANSAS	0	0	3,657,537	0	0	0	0
KENTUCKY	0	3,138,680	0	2,268,003	10,551,973	15,274,713	5,874,951
LOUISIANA	0	0	0	0	4,030,342	4,881,652	0
MAINE	0	1,955,796	0	0	1,209,959	0	0
MARYLAND					0	36,668,333	44,733,894
MICHIGAN	28,828,078	35,279,832	11,994,016	35,537,894	62,608,271	51,727,851	69,466,216
MISSISSIPPI	9,580,936	25,832,911	28,162,120	25,093,780	22,371,121	9,028,501	15,900,812
MISSOURI	10,763,223	53,205,402	40,868,426	27,057,493	56,988,903	21,155,468	27,935,873
NORTH CAROLINA	67,456,375	116,554,265	16,646,465	99,268,538	65,949,471	51,952,238	57,657,110
OHIO	81,682,478	110,076,079	110,010,448	71,201,021	98,837,335	65,109,697	47,632,347
OKLAHOMA	50,806,549	53,898,867	51,220,579	41,421,598	36,377,321	21,026,850	15,350,532
OREGON	0	7,954,867	1,777,593	13,564,561	1,257,963	0	12,588,802
PENNSYLVANIA					0	36,392,287	53,342,235
SOUTH CAROLINA	13,273,511	0	40,841,467	28,032,241	0	4,377,603	24,876,853
TENNESSEE	13,553,331	50,397,680	31,077,074	1,742,286	40,094,300	20,980,986	17,289,123
TEXAS	253,931,521	302,197,272	275,898,540	196,746,679	125,464,106	79,827,584	119,393,086
VIRGINIA	6,794,865	0	50,196,589	59,940,003	0	69,394,195	77,643,165
WASHINGTON	0	0	0	0	0	70,188,485	27,350,078
WISCONSIN	32,973,588	63,308,104	61,855,629	58,075,432	56,615,426	40,526,209	43,936,417
TOTAL	803,890,515	1,215,943,077	1,198,494,373	1,134,984,263	1,159,987,824	1,080,460,035	1,234,618,753

QLADSB94

ACTUAL FY 1993 AND FY 1994 APPORTIONMENT OF THE DONOR STATE BONUS AND HOLD HARMLESS APPORTIONMENT ADJUSTMENT
(DOLLARS IN THOUSANDS)

STATE	FY 1993 DONOR BONUS	FY 1993 H.H. ADJUST.	FY 1994 DONOR BONUS	FY 1994 H.H. ADJUST.
ALABAMA	14,094	0	17,041	3,755
ALASKA	0	9,092	0	16,349
ARIZONA	8,747	24,557	7,368	25,244
ARKANSAS	7,104	13,800	8,435	14,777
CALIFORNIA	79,631	0	67,225	10,500
COLORADO	0	0	0	1,968
CONNECTICUT	0	0	0	0
DELAWARE	0	391	0	1,319
DIST. OF COL.	0	0	0	0
FLORIDA	33,663	0	25,893	4,383
GEORGIA	19,535	11,322	20,894	8,827
HAWAII	0	0	0	0
IDAHO	0	8,946	0	13,357
ILLINOIS	0	60,581	0	70,151
INDIANA	24,970	12,048	36,898	643
IOWA	0	9,765	0	12,396
KANSAS	0	8,978	0	10,958
KENTUCKY	15,625	6,021	19,404	11,971
LOUISIANA	10,236	26,485	0	38,820
MAINE	0	306	0	737
MARYLAND	10,633	11,993	8,424	14,972
MASSACHUSETTS	0	0	0	0
MICHIGAN	32,508	0	35,687	0
MINNESOTA	0	2,502	0	0
MISSISSIPPI	6,108	18,003	6,694	14,952
MISSOURI	19,084	20,939	19,590	17,301
MONTANA	0	21,175	0	16,236
NEBRASKA	0	0	0	0
NEVADA	0	2,748	0	3,753
NEW HAMPSHIRE	0	0	0	708
NEW JERSEY	0	4,212	0	30,953
NEW MEXICO	0	39,681	0	42,273
NEW YORK	0	28,699	0	20,432
NORTH CAROLINA	17,219	23,406	15,861	31,370
NORTH DAKOTA	0	5,853	0	7,336
OHIO	44,311	24,054	54,444	24,083
OKLAHOMA	8,325	14,330	7,814	23,743
OREGON	0	19,994	6,983	17,837
PENNSYLVANIA	23,994	97,460	21,280	101,701
RHODE ISLAND	0	0	0	0
SOUTH CAROLINA	10,371	0	8,058	10,912
SOUTH DAKOTA	0	3,593	0	12,745
TENNESSEE	17,064	13,654	17,442	22,411
TEXAS	50,615	0	44,312	0
UTAH	0	2,142	0	7,997
VERMONT	0	446	0	114
VIRGINIA	18,809	2,036	17,771	0
WASHINGTON	13,798	72,406	12,388	63,166
WEST VIRGINIA	0	0	0	0
WISCONSIN	12,136	59,834	16,104	56,265
WYOMING	0	4,263	0	3,375
PUERTO RICO	0	0	0	
TOTAL	498,580	685,715	496,010	790,790

EMERGENCY RELIEF
Obligations
(millions)

	FY '90 Obl.	FY91 Obl	FY92 Obl	FY93 Obl
ALABAMA	9.9	12.1	8.6	0.5
ALASKA	3.9	1.1	(0.1)	11.3
ARIZONA	(0.4)	0.0	0.0	26.9
ARKANSAS	1.3	0.4	0.2	(0.2)
CALIFORNIA	281.0	109.7	325.6	188.1
COLORADO	(0.6)	(0.1)	0.0	0.0
CONNECTICUT	0.0	0.5	0.0	2.6
DELAWARE	0.8	0.0	0.0	0.0
DIST. OF COL.	0.0	0.0	0.0	0.0
FLORIDA	6.2	(2.3)	0.1	71.9
GEORGIA	0.0	2.7	0.0	0.0
HAWAII	0.0	0.0	0.0	2.2
IDAHO	0.8	0.0	0.0	0.0
ILLINOIS	0.0	1.2	0.0	1.5
INDIANA	0.0	0.8	0.5	0.0
IOWA	0.0	0.0	0.0	6.0
KANSAS	0.0	0.0	0.0	11.0
KENTUCKY	1.5	0.4	0.3	0.0
LOUISIANA	0.0	0.0	0.0	3.1
MAINE	0.1	2.4	(0.8)	0.3
MARYLAND	0.0	0.0	0.0	0.0
MASSACHUSETTS	1.9	(0.3)	(0.2)	0.0
MICHIGAN	(0.4)	(0.2)	(0.2)	0.0
MINNESOTA	0.0	0.0	0.0	0.0
MISSISSIPPI	0.0	0.0	0.0	0.0
MISSOURI	0.0	0.4	0.1	29.0
MONTANA	0.0	0.0	0.0	0.0
NEBRASKA	0.6	0.7	0.2	1.8
NEVADA	0.0	0.0	0.0	0.0
NEW HAMPSHIRE	0.0	0.0	0.0	0.0
NEW JERSEY	(0.2)	0.0	(0.3)	3.7
NEW MEXICO	0.0	0.0	0.0	0.0
NEW YORK	0.0	0.0	(0.1)	1.2
NORTH CAROLINA	0.0	5.5	(2.5)	0.0
NORTH DAKOTA	0.0	0.0	0.0	0.0
OHIO	0.0	0.2	0.3	0.0
OKLAHOMA	(0.2)	1.1	2.2	3.1
OREGON	(0.1)	3.1	0.2	0.6
PENNSYLVANIA	(0.2)	0.0	0.0	(0.2)
RHODE ISLAND	0.0	0.0	0.0	0.0
SOUTH CAROLINA	38.5	9.2	1.3	0.0
SOUTH DAKOTA	0.0	0.0	0.0	0.4
TENNESSEE	3.1	2.2	(0.1)	0.0
TEXAS	3.0	2.3	0.0	5.1
UTAH	0.1	3.3	4.5	0.4
VERMONT	0.0	0.0	0.0	0.0
VIRGINIA	(0.1)	0.0	0.0	0.0
WASHINGTON	10.4	34.8	109.0	17.5
WEST VIRGINIA	0.3	(0.2)	(0.2)	0.0
WISCONSIN	0.0	0.0	0.0	0.0
WYOMING	0.0	0.0	0.0	0.0
PUERTO RICO	7.5	3.6	3.4	(0.2)
VIRGIN ISLANDS	1.5	1.2	0.0	0.0
AMERICAN SAMOA	0.4	1.8	1.7	6.0
GUAM	0.0	1.2	0.1	14.0
Subtotals:	370.6	198.8	453.8	407.6
BIA	0.0	0.7	0.5	0.3
BLM	0.0	0.0	0.0	0.0
FOREST SERVICE	4.4	6.5	4.7	4.1
PARK SERVICE	2.6	3.1	0.1	1.1
Subtotals:	7.0	10.3	5.3	5.5
TOTALS:	377.6	209.1	459.1	413.1

DISCRETIONARY BRIDGE PROGRAM

Mr. CARR. Update the table appearing on page 718 of the 1994 hearing volume concerning the discretionary bridge program.

[The information follows:]

The following table lists major discretionary bridge projects that have been funded in fiscal year 1994. The table includes both continuing (previously funded) projects and new (previously unfunded) projects.

The total amount allocated to date in 1994 is $63.2 million.

CONTINUING PROJECTS

[Dollar amounts in millions]

State	Bridge name	Project cost	Federal share	Past allocation	Amount allocated—Fiscal Year 1994
NY	Brooklyn Bridge	$385.0	$308.0	$90.8	$12.8
IL	Clark (US67)	118.4	79.2	74.0	5.1
IL	Franklin Street	49.2	39.3	37.9	1.5
IL	Poplar Street	40.3	32.2	13.5	1.3
OH	Maine Avenue	68.4	51.7	45.0	6.2
IA/IL	Burlington	59.4	47.5	45.6	1.9
IA/IL	Julien Dubuque	30.6	23.8	12.3	9.4
Total					38.2

NEW START PROJECT

State	Bridge name	Project cost	Federal share	Allocated FY 1994
CO	23rd St. Viaduct	$31.3	$25.0	$25.0
Total				63.2

HIGHWAY TRUST FUND ANALYSIS

Mr. CARR. Update the table appearing on page 719 of the 1994 hearing volume relating to highway trust fund balance projections. Assume no changes to current law.

[The information follows:]

FILE: 95CONGBU
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HIGHWAY TRUST FUND ANALYSIS
FY 1995 CONGRESSIONAL SUBMISSION
(DOLLARS IN MILLIONS)

2-23-94

	FY 1992	FY 1993	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
Highway Trust Fund Balance:										
Balance Start of Year	19,496.064	21,098.383	22,140.477	20,483.104	18,453.537	19,267.843	19,525.831	19,961.997	20,753.897	21,924.501
Tax Receipts	16,733.412	18,038.510	18,290.000	18,642.000	22,367.0	22,788.0	23,143.0	23,525.0	23,913.3	24,308.0
Interest	1,654.504	1,559.995	1,439.100	1,126.600	968.8	987.5	1,000.7	1,023.1	1,063.6	1,123.6
Outlays (-)	-16,785.597	-18,556.410	-21,386.473	-21,798.167	-22,521.5	-23,517.5	-23,707.5	-23,756.2	-23,806.3	-23,857.9
Balance End of Year	21,098.383	22,140.477	20,483.104	18,453.537	19,267.843	19,525.831	19,961.997	20,753.897	21,924.501	23,498.295
Investment Rate	N/A	0.06500	0.05500	0.05250	0.05125	0.05125	0.05125	0.05125	0.05125	0.05125
Mass Transit Account:										
Balance Start of Year	9,250.122	9,798.159	10,617.185	10,125.884	9,942.2	10,443.5	10,266.5	9,997.2	9,812.8	9,717.4
Tax Receipts	1,069.825	1,992.186	1,980.000	2,017.000	2,726.0	2,777.0	2,817.0	2,859.0	2,901.6	2,944.9
Interest	746.058	742.502	690.100	556.900	522.000	535.200	526.200	512.400	502.900	498.000
Outlays (-)	-1,267.846	-1,915.662	-3,161.401	-2,757.564	-2,746.7	-3,489.2	-3,612.5	-3,555.8	-3,499.9	-3,445.0
Balance End of Year	9,798.159	10,617.185	10,125.884	9,942.220	10,443.5	10,266.5	9,997.2	9,812.8	9,717.4	9,715.3
Highway Account										
Balance Start of Year	10,245.942	11,300.224	11,523.292	10,357.220	8,511.3	8,824.4	9,259.3	9,964.8	10,941.0	12,207.1
Tax Receipts	15,663.587	16,046.324	16,310.000	16,625.000	19,641.0	20,011.0	20,326.0	20,666.0	21,011.7	21,363.2
Interest	908.446	817.493	749.000	569.700	446.800	452.300	474.500	510.700	560.700	625.600
Outlays (-)	-15,517.751	-16,640.748	-18,225.072	-19,040.603	-19,774.8	-20,028.4	-20,095.0	-20,200.4	-20,306.4	-20,412.9
Balance End of Year	11,300.224	11,523.292	10,357.220	8,511.317	8,824.4	9,259.3	9,964.8	10,941.0	12,207.1	13,782.9

RESEARCH AND DEVELOPMENT CONTRACTORS

Mr. Carr. Provide information on the largest research and development contract awarded by the Federal Highway Administration in 1993 and 1994 to date, similar to the materials appearing on page 721 of the 1994 hearing volume.

[The information follows:]

The 10 contractors with the largest dollar value in awards for 1993 and 1994 are:

Contractor:	*Amount*
National Academy of Sciences	$6,831,671
National Center for Earthquake Engineering Research	5,300,000
Information Dynamics	3,970,449
Department of Energy	3,951,000
Braun Intertec Corporation	3,395,360
Honeywell	3,393,678
Nichols Consulting Engineers	3,069,550
Calspan Corporation	3,054,137
Delco Electronics Corporation	3,009,712
Engineering Inc. Service	2,924,856

IN-HOUSE RESEARCH PROJECTS

Mr. Carr. Update the information appearing on pages 722–724 of the 1994 hearing volume regarding major in-house research projects scheduled for completion in 1994, in addition to those planned for initiation in 1994 and 1995. Include the estimated cost of each project.

[The information follows:]

I. Major in-house research projects scheduled for completion in FY 1994:	Total Cost
Validation of Minimum Sign Luminance Requirements	$80,000
Effectiveness of Urban Freeway Lighting	20,000
Development of Computerized Curvature and Grade	8,000
Safety of Longer Combination Vehicles	5,000
Effect of Different ATIS Display Configurations on Navigational Performance	31,600
Older and Younger Drivers Responses to Emergency Situations	31,600
Study on the Effects of Metal Halide Headlamps on Color Fidelity of Traffic Signs and Markings	30,000
Commercial Vehicle Operations Selected Topics	16,000
Variable Load Amplitude Fatigue	$220,000
Load Prediction & Structural Response - Computer Program	$20,000
Wearing Surface Abrasion Testing on Modular Bridge Deck	$18,000
Culvert Hydraulic Analysis	$30,000
Alternative Protective Measures for Bridge Scour	$75,000
Stone Matrix Asphalt (SMA) - Development of Mixture Tests	50,000
Stone Matrix Asphalt (SMA) - Stabilizing Additives	20,000
Laboratory Evaluation of Physical and Mechanical Properties of Recycled Portland Cement Concrete	35,000
System for Pavement Profiling and Rut Depth Measurement	60,000
Texture Measuring Van	50,000

II. In-house research planned for initiation in FY 1994:	
Development of Safety Applications for Geographic Information Systems	$20,000
Effects of Driver Spatial Ability on Safe Use of ATIS Displays	15,000
Simulator Driving Performance During Continuous Operation	30,000

In-Vehicle Signing Study	50,000
Safer Guardrail Terminals	90,000
In-Vehicle Signing for Motorist Information	11,000
Commercial Vehicle Operations Selected Topics	16,000
Durability of Fiber-Reinforced Polymer (FRP) Grating-Reinforced Slab	30,000
Instrumentation of Full-Scale FRP-Reinforced Deck	30,000
Bridge Management	25,000
Monitoring of FRP Bridge Deck Demonstration Project	25,000
Anchorage Design and Fatigue Behavior of FRP Bridge Cables	30,000
Analysis of Structural Response Data from WIM Instrumentation on Bridges	45,000
Finite-element Modelling of Pin and Hanger Strap Connection	25,000
Numerical Simulation of Flow and Hydraulics at Highway Stream Crossings	30,000
Measurement and Significance of the Thermal Coefficients of Portland Cement Concrete - Phase II	50,000
Evaluation of FHWA Gyratory Testing Machine	20,000
International Cooperative Subgrade Soil Performance Project	350,000
Evaluation of Natural Sands Used in Asphalt Paving Mixtures, II	35,000
Evaluation of Alkali-Silica Reactivity in Concrete Test Procedures and Equipment	75,000
Evaluation of Modified Freeze-Thaw Test Procedures for Concrete	200,000

III. In-house research planned for initiation in FY 1995:

Accuracy of GPS for Accident Data Collection	$10,000
Headways Selection Study	30,000
Validation of the Highway Driving Simulator	55,000
Modeling Composite Materials in the Failure Range using DYNA30	25,000
Evaluation of Software Maps for Navigation and Travel in Rural Areas	20,000
Curved (Steel Bridge) Girder Behavior	250,000
Fiber-Reinforced Polymer (FRP) Hanger Cable Installation	25,000
Aerodynamic Response of Lightweight Bridge Decks of Advanced Composite Material	65,000
Image Analysis of Air Void Systems in Concrete - Application	25,000

SP&R AND NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

Mr. Carr. Update the information appearing on page 725 of the 1994 hearing volume concerning funding for the SP&R and National Cooperative Highway Research Program.

[The information follows:]

FUNDS WHICH WILL BE MADE AVAILABLE FOR THE SP&R AND NCHRP

Program	Fiscal year	
	1994	1995
SP&R	$313,086,282	$330,000,000
NCHRP	17,219,717	18,150,000

CLEAN AIR ACT STUDIES AND RESEARCH

Mr. Carr. Provide information on studies and research conducted or planned related to the Clean Air Act similar to that appearing on pages 726–729 of the 1994 hearing volume.

[The information follows:]

Studies and Research Related to the Clean Air Act Amendments:

1. Project Title: Improve the Integration of Transportation and Air Quality Planning (Phase II)

   Purpose: In FY94, FHWA anticipates becoming the lead agency on this cooperative agreement to the National Association of Regional Counsels (NARC) with joint sponsorship from EPA and FTA (EPA had been the lead agency in FY91-93). The purpose of the agreement is to provide a forum for technical assistance and information exchange primarily for metropolitan planning organizations (MPOs) as they comply with the transportation provisions of the Clean Air Act Amendments. An important focus will be development of a public education campaign for MPOs to explain strategies and options for improving air quality through transportation.

   Estimated Cost: $850,000 (Jointly funded: FHWA-$500,000; FTA-$250,000; and EPA $100,000)

   Scheduled Completion Date: October 1996

2. Project Title: Air Quality Technical Services

   Purpose: This project provides FHWA, through the Volpe National Transportation Systems Center, with air quality expertise on a wide range of technical and policy research questions such as an evaluation of the MOBILE 5.0 emissions model; reviewing State Implementation Plans for air quality and establishing trends; performing case studies on air quality conformity determinations; and analysis of the emissions reduction potential of "cash-for-clunkers" programs. Support has been provided by the Volpe Center since FY92.

   Estimated Cost: $2,700,000

   Scheduled Completion Date: Continuing

3. Project Title: Establish Database for Carbon Monoxide Concentrations at Signalized Intersections and Refine Modelling Approaches

   Purpose: To demostrate conformance of new or improved highway projects with carbon monoxide (CO) standards, computer models are used to predict concentrations at "hot spot" locations either directly or indirectly impacted by the project. This study will: (1) evaluate information on intersection carbon monoxide (CO) concentrations and the pattern of monitored violations, the signifigance of modal emissions, and the current state of the practice in CO intersection modeling; (2) assess the suitablity of existing intersection air quality models (emissions, dispersion, and traffic components); and (3) develop an improved integrated model and a computer program for the air quality assessments of intersections at urban and suburban locations. A cooperative agreement with the National Cooperative Highway Research Program (NCHRP) of the Transportation Research Board was put in place in FY93 to oversee the conduct of this study.

Estimated Cost: $2,500,000 (Jointly Funded: FHWA-$1,500,000; NCHRP-$1,000,000

4. Project Title: Evaluations of Near Highway Dispersion Mechanics for Air Pollutants

Purpose: This research will evaluate the dispersals and consequent impacts at pertinent receptor positions of highway source air pollutants in the immediate vicinity of the source highways under variable wind velocities and variations of highway site geometry. The site geometry is a function of the presence and movements of vehicles, configuration of the highway, highway related structures such as signs and noise barriers, significant nearby topographic features, and buildings. This will lead to development of improvements to highway air pollution microscale modeling by suggested modifications to models, revised models, and algorithms needed to supplement or replace current ones in use to better reflect experimental data and pertinent fluid mechanics.

Estimated Cost: $550,000

Scheduled Completion Date: Summer 1996

5. Project Title: Improve Travel Forecasting Techniques to Respond to the Requirements of the Clean Air Act Amendments and the Intermodal Surface Transportation Efficiency Act

Purpose: A multi-agency (FHWA, FTA, EPA) research effort is underway to redesign the travel forecasting process in response to the CAAA and ISTEA requirements. This will lead to new techniques to forecast land development and travel impacts of new transportation policies. [See also questions 373 to 376.]

Estimated Cost: $10,000,000

Scheduled Completion Date: Multi-year effort

6. Project Title: TRANSIMS - Transportation Analysis Simulation System

Purpose: This project through the Los Alamos National Laboratory, will use state-of-the-art computer technology to provide micro level simulation of region wide travel patterns. This project also supports the initiative to convert National Laboratory capabilities to civlian applications. [See also questions 46 to 53.]

Estimated Cost: $27,000,000

Scheduled Completion Date: Multi-year effort

7. Project Title: Update Highway Performance Monitoring System (HPMS) Simulation Models

Purpose: To better support the implementation of ISTEA and to provide enhanced analytical tools to the States, the FHWA is improving its HPMS analytical tools to better address air quality, congestion monitoring, infrastructure condition monitoring, and overall monitoring of system performance. The FHWA is also adding an GIS analytical tool to the growing battery of tools and will link updated simulation models to the GIS tool for enhanced analyses and presentations. This research will also include methods to capture, display, and analyze HPMS data for use in transportation planning.

Estimated Cost: $5,000,000

Scheduled Completion Date: Multi-year effort

DEMONSTRATED RESEARCH PROJECTS

Mr. Carr. Provide information on FWHA research currently being demonstrated similar to the information appearing on pages 731–734 of the 1994 hearing volume.

[The information follows:]

Demonstrating innovative technologies and concepts is at the center of the Technology Assessment and Deployment Program. These technologies are grouped into projects which use a variety of technology transfer tools—such as mobile laboratories, multimedia packages, workshops, seminars, equipment loans, publications, how-to-do-it and training videotapes, manuals, exhibits, and technical assistance—to promote and demonstrate to highway agencies for adoption. Typically, these projects span a number of years and those represented below duplicate some of the activities reported in previous years, but new activities have also been added.

Each of these projects involves a project manager who becomes technically proficient with the new technology; a technical working group of practitioners representing FHWA, the States and the private sector, to help guide the project; and a team of engineers and technicians to carry out the workshops, seminars and onsite demonstrations. Because of the logistics involved in dealing with 50 states and numerous local agencies, as well as locating suitable field construction sites, project duration varies, but is generally two to four years. During that time, most States will be visited.

Asphalt Mobile Laboratories—Field demonstrations and technical assistance are provided to State highway agencies through two fully equipped mobile asphalt laboratories, giving the States an opportunity to see innovative test equipment and procedures applied at an active asphalt plant on a mix they are developing and evaluating. Regional workshops, videotapes, and training manuals also were used to demonstrate the technology. The 2-day workshop was expanded to strengthen the skills of State highway agency technicians and engineers in the asphalt mix area. Six workshops were completed in addition to conducting 3-week testing programs at contractor plants. The workshops brought out the innovative use of volumetric design and control of asphalt mixes. The effort included continued promotion of innovative equipment, including laboratory compaction methodologies and nuclear asphalt content determination, and addressed the environmentally sensitive use of chemicals used in the normal quality control program.

Stone Matrix Asphalt—As an innovative solution to asphalt pavement rutting, stone matrix asphalt (SMA) demonstrations were continued aggressively. Technical assistance continued to the nearly 20 States involved in SMA projects. Research efforts on optimizing SMA design and materials selection were conducted jointly within FHWA, State highway agencies, and industry and were augmented by a National Cooperative Highway Research Program (NCHRP) study.

High Performance Concrete—Concrete materials initiatives continued to demonstrate the use of innovative laboratory and in situ testing equipment and promoted the use of high performance concrete. An equipment loan program has proved to be a very effective method of transferring the use of innovative equipment to the States; this program was expanded through additional equipment purchases. Initiatives are underway to demonstrate and implement high performance shotcrete technology. High performance shotcrete can be used for bridge rehabilitation, soil nailing wall facings, and tunnels. European concrete pavement technology was demonstrated by constructing test projects in Michigan and in other States.

Non-destructive Testing Equipment—The current use of non-destructive testing (NDT) equipment in the concrete mobile laboratory was accelerated by a hands-on workshop and an equipment loan program. Workshops will continue for several years depending on the States' level of interest. Initiatives are underway to start a national certification program in this type of testing.

Load and Resistance Factor Design—A 5-day workshop was developed to promote the early acceptance of the new load and resistance factor design (LRFD) method recently included in AASHTO bridge specifications. It provides bridge engineers with practical skills in applying the new specifications. LRFD represents a radical departure from the traditional design philosophy of Working Stress Design (WSD), which requires that the total stress caused by all design loads be less than a specified percentage of the bridge material's stress limit.

Geotechnology—Three separate workshop series provided geotechnical engineers with the expertise to properly select, design and construct facilities using mechanically stabilized earth (MSE) walls, soil nail walls, and other proven ground improvement techniques. Ground improvement methods have provided opportunities to solve difficult highway construction problems with innovative, cost-effective technologies. Follow-up technical assistance is available to States planning to incorporate these techniques in their highway or bridge construction projects.

Electroslag Welding—Recent revisions to electroslag welding (ESW) procedures have resulted in greatly increased quality of finished welds; proper techniques are promoted in a combined classroom presentation and fabrication shop demonstration of ESW welding techniques. ESW is a welding technique that is particularly suited to fabrication of thick structural steel members and can provide considerable economies during fabrication.

Bridge Management Systems—FHWA and the States are actively pursuing the implementation of comprehensive bridge management systems (BMS). The development of the PONTIS BMS has been completed and program demonstrations, support, and enhancements are being provided to the States. Two major enhancements are under development to provide a transfer of

PONTIS condition data to the National Bridge Inventory format and to provide a comprehensive database of bridge repair and rehabilitation costs.

Scour Monitoring and Underwater Evaluation and Repair of Highway Bridges—Work is continuing to select instrumentation and finalize training materials for the demonstration projects on scour monitoring and underwater evaluation and repair of highway bridges. This technology was used very successfully to evaluate structures during the 1993 Midwest floods; FHWA's contractor using the FHWA Bridge Inspection Boat provided a valuable service to States along the Mississippi River during this time. The knowledge gained from those experiences will benefit the effort. Pilots to "shake-down" the instrumentation and the demonstrations will be held soon.

Retroreflectometer Devices—Inservice testing of new retroreflectometer devices is underway, and devices are available for inservice trials. Multiple devices are used for rapid evaluation and testing in coordination with State DOTs. These devices will allow reflectivity/visibility guidelines to be established for traffic control devices and will enhance positive guidance capabilities.

Red Light Running—To address the growing safety issue of red light running, hardware that will discourage the practice is under evaluation to improve safety at intersections. In addition, a parallel project has a goal of reducing traffic accidents through the use of targeted public education campaigns designed to improve the behavior and performance of highway users by increasing their awareness of issues related to traffic control device compliance. Charleston, South Carolina, has been selected as the pilot site for implementation of the first campaign.

Corridor Safety Improvement Program—The promotional phase of the Corridor Safety Improvement Program (CSIP), a joint NHTSA-FHWA initiative designed to address severe accident problems on arterial corridors, was completed. This comprehensive approach involving engineering, enforcement, and public awareness to reduce accidents and injuries was presented to more than 35 States. More than 20 pilot corridors are under evaluation to quantify effectiveness. More will be initiated as prior successes become apparent.

Motor Carrier Safety Technology—Motor carrier safety technology is emerging on a larger scale than ever before. Improved marketing methods are being completed that can reach both the broad spectrum of commercial vehicle operators and the enforcement sector with the latest safety information. This is important since a large portion of the enforcement community does not have the most current information related to truck safety. Also, blood alcohol content (BAC) training is being provided to judges and police officers to inform them of the importance of the low BAC levels established by regulation for commercial vehicle operators. In addition, the enforcement community is being provided with new techniques for identifying low BAC levels.

Truck accident data—The National Governors' Association's common truck accident data elements are necessary for meaningful truck accident analysis. Training on collection of this essential data began in 1993 for the entire enforcement community and has continued both in the classroom and via satellite television. State-of-the-art Compact Disk-Interactive (CD-I)—an interactive computer-assisted training technology—is used to help reach a vast number of enforcement agencies.

Traffic and Motor Carrier—Traffic and motor carrier technology applications program has continued to advance new projects in the following categories: intelligent traffic control systems; command and control software for traffic signal operations; incident management; congestion management; demand management; traffic signal simulation and optimization; geographical and highway information systems; global positioning systems; and motor carrier operations. New technology produced by projects in these categories was promoted through an array of innovative techniques to accelerate rapid acceptance and implementation by highway agencies. As Intelligent Vehicle-Highway Systems (IVHS) continue to mature during this decade, a large influx of new traffic and motor carrier technologies will become operational and will need immediate promotion and implementation.

Traffic Technologies—Mobile demonstrations of geographical information systems, video imagery, and advanced traffic control technologies were presented throughout the United States. As new technology evolves from public and private sources, it will be folded into these efforts to keep presentations on the cutting edge.

DISADVANTAGED BUSINESS ENTERPRISES

Mr. CARR. Update the information appearing on pages 735–736 of the 1994 hearing volume relating to disadvantaged businesses.

[The information follows:]

There are no significant changes contained in the new legislation affecting the DBE Supportive Services Program. However, the FHWA continues its recent initiatives:

The regionally administrated Entrepreneurial Development Institute (EDI) in association with the Historically Black Colleges and Universities in an eight southeast state area. Kentucky State University was awarded a $904,630 contract to advance this regional EDI program; and

The development and implementation of a national Indian Out-Reach effort in selected States to enhance the participation of Indian owned businesses in the DBE program.

The establishment and implmentation of a statewide bonding program by the California Department of Transportation in the State of California.

These initiatives will require a continued Federal commitment.

DISADVANTAGED BUSINESS ENTERPRISE AWARDS IN THE FEDERAL-AID HIGHWAY PROGRAM, FISCAL YEARS 1978–93

Fiscal year	Dollar (millions)	Percent	Number of contracts
1978	126.09	1.9	1,200
1979	163.7	2.2	1,574
1980	232.7	2.9	1,625
1981	355.18	4.3	3,585
1982	415.54	5.3	4,125
1983	719.74	8.9	6,990
1984	1,269.25	13.6	12,421
1985	1,278.60	11.5	13,091
1986	1,198.94	11.0	12,233
1987	1,525.72	14.7	16,441
1988	1,586.99	14.6	14,914
1989	1,571.89	14.4	14,277
1990	1,441.13	13.9	13,873
1991	1,554.71	13.9	15,236
1992	1,655.66	12.7	16,577
1993	1,801.33	12.9	18,552

POSITION ALLOCATIONS

Mr. CARR. Update the chart depicted on page 737 of the 1994 hearing volume showing position allocations. Show 1993 actual, 1994 as submitted, 1994 current plan, and 1995 proposed.

[The information follows:]

	Fiscal years—		
	1993 actual	1994 estimate	1995 estimate
Program Direction and Coordination:			
Executive Direction	19	19	19
Program Review	5	5	5
Legal Services	36	36	36
Public Affairs	4	4	4
Civil Rights	18	18	18
General Program Support:			
Policy	91	91	91
Research and Development	124	124	124
Administration	291	291	291
Career Development	151	151	151
Highway Programs:			
Program Development	209	209	209

	Fiscal years—		
	1993 actual	1994 estimate	1995 estimate
Safety and System Applications	111	111	111
Motor Carriers	707	707	707
Federal Lands Highway Office	18	18	18
Field Operations	1,588	1,588	1,588
Total, GOE	3,372	3,372	3,372

FIELD OPERATIONS STAFF

Mr. CARR. Provide a breakdown of FHWA field operations staff by activity.

[The information follows:]

As of February 28, 1994, the field operations staff, by activity, is as follows:

Executive direction	41
Legal services	27
Civil rights	20
Planning and research	218
Administrative support	343
Engineering and operations	899
Total	1,548

RIGHT-OF-WAY REVOLVING FUND

Mr. CARR. Update the information on right-of-way revolving fund obligations shown on page 756 of the 1994 hearing volume.

[The information follows:]

As of March 15, 1994—$19,289,000.

Right-of-Way revolving fund obligations for FY 1994:

States:	*Obligated*
MD	$54,000
NC	900,000
MI	7,000,000
CA	500,000
NV	9,135,000
ID	1,700,000
Effective March 15, 1994	$19,289,000

FEDERAL-AID LIMITATION EXEMPTIONS

Mr. CARR. Provide the estimated fiscal year 1995 obligations for each of the exemptions to the limitation on obligations for Federal-aid Highways, similar to the listing contained on page 757 of the 1994 hearing volume.

[The information follows:]

Fiscal year 1995 estimated obligations for exempt programs[1]

	[In millions of dollars]
Emergency Relief (sec. 125, title 23)	100
Minimum Allocation (sec. 157, title 23)	1,187
Applied Research and Technology (sec. 6005 of ISTEA)	24
National Defense Highways Outside the U.S. (sec. 1006 of ISTEA)	12
Bonus Limitation (sec. 1002 of ISTEA)	180
ISTEA Demonstration Projects (sec. 1103–1108 of ISTEA)	180
Projects authorized by the Surface Transportation and Uniform Relocation Assistance Act of 1987 (sec. 149 of STURAA)	46
Other exempt programs, including projects authorized by the Surface Transportation Assistance Act of 1978, the Federal-aid Act of 1981, or the Surface Transportation Assistance Act of 1982	8

	[In millions of dollars]
Total	1,737

[1] The FY 1995 budget proposes that all of the currently exempt programs listed above, except for Emergency Relief, be subject to the Federal-aid Highways obligation limitation beginning in FY 1995.

COST BENEFIT ANALYSES FOR CAPITAL PROJECTS

Mr. CARR. Describe in detail how the Federal Highway Administration intends to comply with the new Executive Order concerning cost-benefit analyses for capital projects.

[The information follows:]

As required by the ISTEA, the States, metropolitan planning organizations (MPOs), and transit operators determine which projects will be federally funded based on the statewide and metropolitan transportation planning processes required by ISTEA. The FHWA and FTA have issued joint regulations to implement these ISTEA planning and management system requirements that, while not explicitly referred to as requiring cost/benefit analyses, require the consideration of many of the factors identified in the Executive Order including the social, economic, energy, and environmental effects of transportation decisions, the effect of transportation decisions on land use and land development, life cycle costs, and consideration of options including demand management.

Where the need for major transportation improvements is identified through the metropolitan transportation planning process, major investment studies (MIS) must be completed before Federal funds can be used to advance major improvements. As part of the MIS, a reasonable range of alternatives must be analyzed. Through the analysis, the cost-effectiveness of alternative investments or strategies in meeting local, State, and national goals and objectives must be evaluated. The MIS must include environmental studies that will serve as input to the development of the required environmental documents.

In addition to issuing regulations, the FHWA provides technical assistance to the States and MPOs that encourages their use of procedures that explicitly address the benefits and costs of alternative approaches to meeting transportation needs. We are also working to improve cost-benefit methodologies that are currently available. Some examples of the technical assistance being provided include organizing a policy workshop in December 1992 involving State and local government officials, and representatives from the private sector to develop recommendations on implementing the ISTEA requirements on life cycle cost analysis. The results of the workshop are being used to prepare policy, technical assistance, research recommendations, and guidance for practice. FHWA is also encouraging the Federal land managing agencies to better manage the Federal roads through implementation of the three management systems required for FLHP in ISTEA. Additionally, FHWA is conducting regional outreach workshops on planning regulations, management systems, and air quality conformity regulations. Most of the workshops include a 1-day program on major investment studies to explain the requirements for comparing major capital investments. Finally, FHWA is developing and distributing a notebook containing concise descriptions of 14 innovative public involvement techniques suited to transportation planning to enable planners to involve the public more effectively. A number of other efforts to develop technical assistance and training on public involvement are underway.

At the program level, the FHWA has been providing estimates of the benefits to be derived from different levels of Federal infrastructure investment to support our budget submissions. Benefits quantified include miles of roadway and number of bridges improved, user cost savings, jobs created, and longer range economic productivity benefits. We are continuing to work to improve our capacity for quantifying the benefits of different levels of program investment.

NATIONAL PEDESTRIAN AND BICYCLIST CLEARINGHOUSE

Mr. CARR. The conference agreement on the 1994 Transportation Appropriations Act included $500,000 for a national pedestrian and bicyclist clearinghouse. What is the status of this effort? What amount of the $500,000 has been obligated?

[The information follows:]

In order to obtain the best qualified operator, the clearinghouse is being set up under a competitive bidding process, and it will be in operation by September 30. To date, similar existing clearinghouses have been investigated, the objectives for this effort have been identified, and the statement of work has been drafted. The contract for this clearinghouse will be awarded under a firm, fixed-price contract for $500,000 in fiscal year 1994 funds. Consequently, all of these funds are reserved for this contract, and therefore, none have been obligated to date.

CASH BONUSES

Mr. CARR. For fiscal years 1993, 1994 and 1995 provide the amount spent and planned for cash bonuses in the Federal Highway Administration. Also include how many people received such bonuses in the past three years, and the number of employees receiving bonuses of $10,000 or more.

[The information follows:]

If, by the term "bonuses" you mean bonuses and Rank Awards to Senior Executive Service members, we paid out:

25 SES Bonuses and 3 Rank Awards in fiscal year 1993 totaling $187,062. (Three bonuses and all 3 Rank awards were for more than $10,000;)

16 SES Bonuses and 3 Rank Awards in fiscal year 1994 totaling $116,465. The 2 Rank awards were for $10,000; one Rank award exceeded $10,000; but none of the SES bonuses were that large; and

We are projecting approximately 15 SES Bonuses and 2 Rank Awards in fiscal year 1995 totaling approximately $104,000. Only the two Rank awards should exceed $10,000.

In addition to the SES awards we made the following performance awards to employees in grades GS–1—GM–15 (and equivalent):

Fiscal year 1993, 1753 awards totaling $1,883,811. Two awards were over $10,000.

Fiscal year 1994, 1997 awards totaling $2,220,563. One award over $10,000.

We are projecting approximately 2000 awards totaling $2,260,000 in fiscal year 1995, with two or three awards over $10,000.

ISTEA DEMONSTRATION PROJECTS

Mr, CARR. Provide a listing of each ISTEA demonstration project showing the total amount of contract authority made available to date, by year, and the total current unobligated balance. Also indicate for each such demonstration project whether or not it is included in a state transportation improvement program.

[The information follows:]

Contract authority available to the demonstration projects in Sections 1103 through 1108 of the ISTEA is shown in the following tables by section.

The total unobligated balance, as of March 14, 1994, for these seven sections of ISTEA demonstration projects is summarized below:

UNOBLIGATED BALANCE FOR ISTEA DEMONSTRATION PROJECTS

[As of March 14, 1994]

ISTEA section	Contract authority through fiscal year 1994	Unobligated balance
1103—High Cost Bridge	$127,769,600	$57,559,355
1104—Congestion Relief	219,537,920	174,785,709
1105(f)—High Priority NHS Corridors	570,020,480	415,448,771
1106(a)—Rural Access	412,442,240	263,985,085
1106(b)—Urban Access	249,168,640	161,948,195
1107—Innovative Projects	1,152,303,040	667,825,260
1108—Priority Intermodal	195,753,600	143,888,801
Total	2,926,995,520	1,885,441,176

As a prerequisite for obligation of demonstration funds on a project, the project must be included in the State transportation improvement program (STIP). When decisions are made to advance a project, the STIP is amended as appropriate to include the project.

HIGH COST BRIDGE PROJECTS IN SECTION 1103 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Arkansas	4	Arkansas-Mississippi Great River Bridge	64,000	147,200	147,200	358,400
California	6	San Francisco: Golden Gate Bridge	472,000	1,085,600	1,085,600	2,643,200
Florida	12	Ft. Lauderdale: 17th Street Causeway Tunnel/ Bridge Replacement	1,088,000	2,502,400	2,502,400	6,092,800
	15	Miami: Dodge Island Bridge	272,000	625,600	625,600	1,523,200
Maine	9	Donald B. Carter Memorial Bridge	2,568,000	5,906,400	5,906,400	14,380,800
Maryland	13	Woodrow Wilson Bridge Rehabilitation	2,368,000	5,446,400	5,446,400	13,260,800
Minnesota	10	Shakopee: Bloomington Ferry Bridge	1,760,000	4,048,000	4,048,000	9,856,000
New Jersey	7	Cape May & Atlantic Cos; Replace critical bridge between Ocean City and Longport	1,472,000	3,385,600	3,385,600	8,243,200
New York	14	McComb Dam Bridge; Manhattan Bridge Rehab; Main Span Rehab of Queensboro Bridge; Williamsburg Br Rehab; Brooklyn Br Rehab	5,920,000	13,616,000	13,616,000	33,152,000
Ohio	8	Maumee River bridge/tunnel study	80,000	184,000	184,000	448,000
Oklahoma	1	Delaware City: Replacement bridge on US-59 over Grand Lake	776,000	1,784,800	1,784,800	4,345,600
Oregon	2	Eugene: Construction of Ferry Street Bridge	1,896,000	4,360,800	4,360,800	10,617,600
Pennsylvania	3	Beaver Co: Aliquippa Ambridge Bridge	2,000,000	4,600,000	4,600,000	11,200,000
South Carolina	11	Charleston: Highway 17 Bridge replacement projects: Cooper River	1,136,000	2,612,800	2,612,800	6,361,600
Virginia	5	Gloucester Point: Widen existing bridge over the York River	944,000	2,171,200	2,171,200	5,286,400
		Totals:	22,816,000	52,476,800	52,476,800	127,769,600

CONGESTION RELIEF PROJECTS IN SECTION 1104 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Arizona	23	Tucson: Oracle & Orange Grove Rds interchange	312,000	717,600	717,600	1,747,200
California	1	Long Beach:Construction of HOV Lanes on I-710	592,000	1,361,600	1,361,600	3,315,200
	10	San Diego: Construct 1 block of Cut and Cover Tunnel on Rt. 15 in downtown San Diego	400,000	920,000	920,000	2,240,000
	11	Los Angeles: To extend I-110 North from I-10 into downtown Los Angeles	808,000	1,858,400	1,858,400	4,524,800
	14	Dixon: To improve 3 grade crossings	144,000	331,200	331,200	806,400
	15	Fairfield: To construct 2 park & ride facilities, an information center, transfer hub	616,000	1,416,800	1,416,800	3,449,600
	24	Victorville: Construct interchange 1 mile north of Palmdale Road on I-15	216,000	496,800	496,800	1,209,600
	37	Richmond: I-80 Richmond Parkway Interchange	144,000	331,200	331,200	806,400
	40	Sunnyvale: HOV lane improvements on Lawrence Expressway	808,000	1,858,400	1,858,400	4,524,800
District of Columbia	6	Washington: Primary Intermodal System	544,000	1,251,200	1,251,200	3,046,400
Florida	25	Palm Beach: Acquire ROW and construct and widen to 4 lanes 19 mile segment of US 27	440,000	1,012,000	1,012,000	2,464,000
	30	Broward Co.: Hallandale Bridge Project	680,000	1,564,000	1,564,000	3,808,000
Idaho	31	Bannock & Caribou Counties: Any elligible Federal-aid highway projects under title 23.	808,000	1,858,400	1,858,400	4,524,800
Illinois	4*	East St. Louis: Feasibility study of a bridge between East St. Louis and St. Louis Multi-State (Illinois, Missouri)	112,000	257,600	257,600	627,200
	19	Fox River Valley: Study, plan and construct up to 6 bridges across the Fox River	664,000	1,527,200	1,527,200	3,718,400
Indiana	35	Merrillville: Construction of four lane road and overpass	144,000	331,200	331,200	806,400
Kansas	29	Leavenworth: West Leavenworth Trafficway Project	688,000	1,582,400	1,582,400	3,852,800
Kentucky	39	Louisville: Waterfront Development Roadway Improvements	376,000	864,800	864,800	2,105,600
Maine	27	Topsham-Brunswick Bypass	840,000	1,932,000	1,932,000	4,704,000
	44	Bath-Woolwich: Improvements to Carlton Bridge	800,000	1,840,000	1,840,000	4,480,000
Maryland	20	Prince George's Co: To rehabilitate the Baltimore-Washington Parkway ** FHWA Federal Lands project **	1,304,000	2,999,200	2,999,200	7,302,400
Massachusetts	22	Boston: A bicycle and pedestrain path connecting Arlington, Boston and Cambridge	96,000	220,800	220,800	537,600
Michigan	32	Vienna Township: I-75/M57 interchange	712,000	1,637,600	1,637,600	3,987,200

CONGESTION RELIEF PROJECTS IN SECTION 1104 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority FY 1992	FY 1993	FY 1994	Total FY92-FY94
Missouri	4*	East St. Louis: Feasibility study of a bridge between East St. Louis and St. Louis Multi-State (Illinois, Missouri)	0	0	0	0
	5	St. Louis: Relocation of Lindbergh Boulevard and I-70 at St. Louis Lambert Airport	1,184,000	2,723,200	2,723,200	6,630,400
	16	St. Louis: Feasibility study for interchange improvements for I-255 at Rt. 231	8,000	18,400	18,400	44,800
Mississippi	28	Rankin Co.: East-Metro Center Access Road	368,000	846,400	846,400	2,060,800
North Dakota	12	Lincoln State Park Bypass	88,000	202,400	202,400	492,800
New Hampshire	6	Nashua: Nashua River Bridge - Construction of second bridge	96,000	220,800	220,800	537,600
Nevada	9	Las Vegas: Reconstruct and upgrade I-15/US-95 Interchange (Spaghetti Bowl)	3,600,000	8,280,000	8,280,000	20,160,000
New York	7	Buffalo: Construction of Peace Bridge truck inspection facility	1,560,000	3,588,000	3,588,000	8,736,000
	13	Babylon: Construct turning lanes, sign upgrades, traffic signal interconnections and road repair and resurfacing	168,000	386,400	386,400	940,800
	18	Long Island: To make improvements on the Van Wyck Expressway to improve traffic flow	288,000	662,400	662,400	1,612,800
	38	New York: Construction of Williamsburg to Holland Tunnel Bypass	288,000	662,400	662,400	1,612,800
Ohio	21	Toledo: Study of possible safety and traffic delay improvement benefits in 6 corridors	19,200	44,160	44,160	107,520
	41	Dayton: Construction of a bicycle pedestrian facility from Greene County to Dayton	240,000	552,000	552,000	1,344,000
Pennsylvania	2	Philadelphia: Project to Construct Bridge-Pratt Terminal	2,760,000	6,348,000	6,348,000	15,456,000
	26	Improve River Street, Towanda Borough and North Towanda Township to form highway bypass	704,000	1,619,200	1,619,200	3,942,400
Tennessee	3	Davidson,Williamson Cos: Study & construction of Davidson-Williamson Bike Path	80,000	184,000	184,000	448,000
	17	Murfreesboro: Conduct a feasibility study of const a bicycle system (P.L. 102-388 sect378)	32,000	73,600	73,600	179,200
Virginia	33	Prince William Co.: I-95 HOV lane extension	1,080,000	2,484,000	2,484,000	6,048,000
Virgin Islands	34	St. Thomas: Raphune Hill Bypass	1,472,000	3,385,600	3,385,600	8,243,200
Wisconsin	36	I-794 Bicycle Transportation Projects in Milwaukee and Waukesha Counties	120,000	276,000	276,000	672,000
West Virginia	42	Berkeley & Jefferson Counties: Improvements of SR-9 from Martinsburg to VA State line	8,800,000	20,240,000	20,240,000	49,280,000
	43	Construction of Coal Fields Expressway from Beckley to VA State line	4,000,000	9,200,000	9,200,000	22,400,000
		Totals:	39,203,200	90,167,360	90,167,360	219,537,920

* Multi state projects, funding split determined yearly.

HIGH PRIORITY CORRIDOR SEGMENTS ON NATIONAL HIGHWAY SYSTEM IN SECTION 1105(f) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Alabama	2*	Upgrading of the East-West Corridor along Route 72 (Alabama, Georgia, Mississippi, Tennessee)	955,040	2,196,592	2,196,592	5,348,224
	8	Appalachian Regional Corridor X From SR-25 near Fulton, MS to US-31 in Birmingham, AL	4,736,000	10,892,800	10,892,800	26,521,600
	9	Appalachian Regional Corridor V from MS State Line near Red Bay to TN State Line north of Bridgeport, AL	2,032,000	4,673,600	4,673,600	11,379,200
Arkansas	4	For construction of Highway 412 from Siloam Springs to Springdale, Arkansas	2,720,000	6,256,000	6,256,000	15,232,000
	5	For construction of Highway 412 from Springdale to Harrison, Arkansas	4,480,000	10,304,000	10,304,000	25,088,000
	14	Construction of US-71 between Fayetteville and Alma, AR as part of North-South Corridor	8,000,000	18,400,000	18,400,000	44,800,000
	15*	Construction of US-71 from Alma, AK, to the Louisiana State Line AK 91.064% TX 8.936%	5,099,584	11,729,043	11,729,043	28,557,670
	29	Highway 412 from Harrison to Mt. Home	1,600,000	3,680,000	3,680,000	8,960,000
Arizona	20*	For improvements on I-15 and I-40 in (California, Nevada, and Arizona), including the I-15/US-95 interchange in Nevada	0	0	0	0
California	20*	For improvements on I-15 and I-40 in (California, Nevada, and Arizona), including the I-15/US-95 interchange in Nevada	3,896,000	4,960,800	8,960,800	17,817,600
Georgia	2*	Upgrading of the East-West Corridor along Route 72 (Alabama, Georgia, Mississippi, Tennessee)	447,040	1,028,192	1,028,192	2,503,424
Indiana	18	Construct a 4-lane highway from Lafayette to Ft. Wayne following existing SR-25 & US-24	760,000	1,748,000	1,748,000	4,256,000
	19*	Conduct feasibility and economic study to widen US-24 from Ft. Wayne, IN to Toledo, OH as part of Lafayette to Toledo Corridor(IN,OH)	0	0	0	0
	26	To improve the Bloomington, IN, to Newberry, IN, segment of the Indianapolis, IN, to Memphis, TN, high priority corridor (This segment is all in IN.) (IN, KY, TN)	1,896,000	4,360,800	4,360,800	10,617,600
Iowa	22*	For improvements for Avenue of the Saints from St. Paul, MN, to St. Louis, MO (Iowa, Minnesota, Missouri)	5,930,160	13,639,368	13,639,368	33,208,896
Louisiana	21	To improve the North-South Corridor from the Louisiana State Line to Shreveport, Louisiana	2,368,000	5,446,400	5,446,400	13,260,800
Michigan	18	Widen a 60-mile portion of Highway M-59 from MacComb County to I-96 in Howell Co. (4.1M in FY93 to 1108(25) (P.L. 102-388 sect 367)) All 4.1M was returned to this project.	2,368,000	5,446,400	5,446,400	13,260,800
Minnesota	22*	For improvements for Avenue of the Saints - from St. Paul, MN, to St. Louis, MO (Iowa, Minnesota, Missouri)	944,000	2,171,200	2,171,200	5,286,400

HIGH PRIORITY CORRIDOR SEGMENTS ON NATIONAL HIGHWAY SYSTEM IN SECTION 1105(f) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Mississippi	2*	Upgrading of the East-West Corridor along Route 72 (Alabama, Georgia, Mississippi, Tennessee)	406,400	934,720	934,720	2,275,840
Missouri	3	Improvement of North-South Corridor along Highway 71 in Southwestern, MO	288,000	662,400	662,400	1,612,800
	22*	For improvements for Avenue of the Saints from St. Paul, MN, to St. Louis, MO (Iowa, Minnesota, Missouri)	2,565,840	5,901,432	5,901,432	14,368,704
Nebraska	7*	Conduct a feasibility study of an expressway from Rapid City, SD, to Scotts Bluff, NE (Nebraska, South Dakota)	51,200	117,760	117,760	286,720
	17*	To improve the Heartland Expressway from Rapid City, SD, to Scotts Bluff, NE (Nebraska, South Dakota)	2,368,000	5,446,400	5,446,400	13,260,800
Nevada	20*	For improvements on I-15 and I-40 in (California, Nevada, and Arizona), including the I-15/US-95 interchange in Nevada	840,000	5,932,000	1,932,000	8,704,000
New York	30	Improvements on Route 219 between Springville to Ellicottville in New York State	760,000	1,748,000	1,748,000	4,256,000
North Carolina	13*	For upgrading I-64 & Rt.17 in VA and constructing a new highway from Rocky Mount to Elizabeth City, NC, as part of the Raleigh-Norfolk High Priority Corridor Improvements. (N. Carolina, Virginia)	1,424,000	3,275,200	3,275,200	7,974,400
Ohio	19*	Conduct feasibility and economic study to widen US-24 from Ft. Wayne, IN to Toledo, OH as part of Lafayette to Toledo Corridor(OH,IN)	25,600	58,880	58,880	143,360
Pennsylvania	1	For upgrading US-220 High Priority Corridor between State College and I-80	4,056,000	9,328,800	9,328,800	22,713,600
	6	To improve US-220 to a 4-lane limited access highway from Bald Eagle northward to US-322	11,840,000	27,232,000	27,232,000	66,304,000
South Dakota	7*	Conduct a feasibility study of an expressway from Rapid City, SD, to Scotts Bluff, NE (Nebraska, South Dakota)	0	0	0	0
	17*	To improve the Heartland Expressway from Rapid City, SD, to Scotts Bluff, NE (Nebraska, South Dakota)	0	0	0	0
Tennessee	2*	Upgrading of the East-West Corridor along Route 72 (Alabama, Georgia, Mississippi, Tennessee)	223,520	514,096	514,096	1,251,712
Texas	15*	Construction of US-71 from Alma, AK, to the Louisiana State Line AK 91.064% TX 8.936%	500,416	1,150,957	1,150,957	2,802,330
Virginia	13*	For upgrading I-64 & Rt.17 in VA and constructing a new highway from Rocky Mount to Elizabeth City, NC, as part of the Raleigh-Norfolk High Priority Corridor Improvements (N. Carolina, Virginia)	0	0	0	0
	28	Construction of Danville Bypass on Route 29 Corridor	1,360,000	3,128,000	3,128,000	7,616,000

HIGH PRIORITY CORRIDOR SEGMENTS ON NATIONAL HIGHWAY SYSTEM IN SECTION 1105(f) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Washington	27	US-395 improvements from US Canadian border to Oregon State Line	4,360,000	10,026,000	10,028,000	24,416,000
West Virginia	10	Construction of Shawnee Project from 3-Corner Junction to I-77 as part of I-73/74 Corridor	360,000	828,000	828,000	2,016,000
	11	Widening US-52 from Huntington to Williamson, WV, as part of I-73/74 Corridor Project	8,000,000	18,400,000	18,400,000	44,800,000
	12	Replacement of US-52 from Williamson, WV, to I-77 as part of I-73/74 Corridor Project	1,120,000	2,576,000	2,576,000	6,272,000
		SPECIAL MULTI - STATES				
16 States	24*	I-66 Transamerica Highway Feasibility Study FHWA HEP-50 Intermodal Division.	80,000	184,000	184,000	448,000
FHWA: HFL-1 Kentucky Tennessee Virginia	25*	To improve Cumberland Gap Tunnel and for various associated improvements as part of the US-25E Corridor. Administrated by FHWA Federal Lands Highway Office.	5,792,000	66,608,000	0	72,400,000
		TOTALS:	94,652,800	270,987,840	204,379,840	570,020,480

* Multi-State Project

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Alabama	12	Decatur: Keller Memorial Bridge Replacement	1,016,000	2,336,800	2,336,800	5,689,600
Arkansas	49	Harrison: To improve US 65 from Harrison, Arkansas to Missouri Line	3,040,000	6,992,000	6,992,000	17,024,000
	50	Ft. Smith: Improve Phoenix Avenue in the vicinity of the Ft. Smith Airport	632,000	1,453,600	1,453,600	3,539,200
	51	Bella Vista: To study bypass alternative for US 71 in the vicinity of Bella Vista	240,000	552,000	552,000	1,344,000
	53	DeValls Bluff: Replacement bridge across the White River	200,000	460,000	460,000	1,120,000
	54	Jonesboro: Complete construction of 3 interchanges on the Highway 63 bypass	456,000	1,048,800	1,048,800	2,553,600
Arizona	95	Navajo County: Turquoise Trail Highway (Administered by Bureau of Indians Affairs)	472,000	1,085,600	1,085,600	2,643,200
Colorado	60	Montewma: Upgrade farm to market road serving Ute (Mountain) Indian Reservation	232,000	533,600	533,600	1,299,200
Florida	28	Chattahochee: Construction of Mosquito Creek Bridge	192,000	441,600	441,600	1,075,200
	29	To upgrade State Rt. 71 from State Rt. 10 to State Rt. 8	232,000	533,600	533,600	1,299,200
	30	To upgrade Florida SR-267 from SR-8 to SR-10	376,000	864,800	864,800	2,105,600
	55	Brevard County: Design & Engineering improvements for SR-3 between SR-520 and SR-528	12,800	29,440	29,440	71,680
Illinois	9	East St. Louis: Feasibility study for 4-lane Access Road to Jefferson Memorial Park	19,200	44,160	44,160	107,520
	10	Environmental Impact Study & Design Study on Highway 67 from Alton to Jacksonville	200,000	460,000	460,000	1,120,000
	11	Venice: Rehabilitation of McKinley Bridge	472,000	1,085,600	1,085,600	2,643,200
	31	East Louis: Tollway feasibility study (East Louis to Carbondale, IL)	25,600	58,880	58,880	143,360
	32	Mt. Vernon: Extension of 34th Street from IL Rt. 15 to County Road 10	76,800	176,640	176,640	430,080
	33	Reconstruction of Feather Trail Road from Ullin Road Interchange to Rt. 37, Pulaski Co	88,000	202,400	202,400	492,800
	34	Resurfacing IL Rt. 1 from Cave-In-Rock to north of Omaha	144,000	331,200	331,200	806,400
	35	Williamson County: Upgrading IL Route 13	624,000	1,435,200	1,435,200	3,494,400
	36	Saline County: For improvement to Rt. 13 from Williamson-Saline County line to Harrisburg	320,000	736,000	736,000	1,792,000
	65	W. Central: For widening of US 34 between Burlington, Iowa and Monmouth, Ill.	152,000	349,600	349,600	851,200
	66	To make improvements including construction of a bridge on US 67 in NW Illinois	192,000	441,600	441,600	1,075,200
	107	For construction of the Alton Bypass from the vicinity of Alton and Godfrey	352,000	809,600	809,600	1,971,200
Iowa	108	Gerro Gordo County: Mason City Bypass	1,184,000	2,723,200	2,723,200	6,630,400

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Kansas	21	Riverton: Construction of a new highway from Riverton, KS to I-44 in Missouri	1,048,000	2,410,400	2,410,400	5,868,800
	78	Overland Park: I-435 Interchange Project	328,000	754,400	754,400	1,836,800
	102	Lawrence: Lawrence circumferential Roadway, Douglas County	264,000	607,200	607,200	1,478,400
	103	Eastern Shawnee: Oakland Expressway	472,000	1,085,600	1,085,600	2,643,200
Kentucky	89	Pike County: US 119 Upgrading	608,000	1,398,400	1,398,400	3,404,800
	98	South Central Kentucky: Highway 92 Relocation Study	8,000	18,400	16,400	44,800
	99	Jessamine County: US 27 Improvements	736,000	1,692,800	1,692,800	4,121,600
Louisiana	17	Lake Charles: Construction of roads and bridge to Rose Bluff Industrial Area	328,000	754,400	754,400	1,836,800
	18	Improvements and extension of Ambassador Caffery Parkway	1,192,000	2,741,600	2,741,600	6,675,200
	56*	Const of a new road from an area in the area of I-59 to Alexandria (P.L. 102-388 sect 405)	136,000	312,800	225,444	674,244
	74	Bossier City: To study grade separations along 10 mile of KC Railroad along US 71	12,800	29,440	29,440	71,680
	113	Louisa: Louisa Bridge Replacement	760,000	1,748,000	1,748,000	4,256,000
Michigan	43	US 131, St. Joseph County	40,000	92,000	92,000	224,000
	44	Berrien Co: US-31 relocation	1,392,000	3,201,600	3,201,600	7,795,200
	45	Holland: US 31 upgrade, Holland, Ottawa Co.	104,000	239,200	239,200	582,400
	58	Farmington Hills: To widen 12-mile road corridor in the vicinity of Farmington Hills	200,000	460,000	460,000	1,120,000
	90	Jackson County: US 127 Upgrading	64,000	147,200	147,200	358,400
Minnesota	22	Aurora-Hoyt Lakes/Silver, Bay: Construction and reconstruction of Forest Highway 11 connecting Aurora-Hoyt Lakes and Silver Bay	760,000	1,748,000	1,748,000	4,256,000
	23	Richfield: 77th St Reconstruction Project	928,000	2,134,400	2,134,400	5,196,800
	88	Mankato: Mankato South Rt. Improvements,	800,000	1,840,000	1,840,000	4,480,000
	91	Eden Prairie/Cologne: US Trunk highway 212 improvement project, Eden Prairie/Cologne	696,000	1,600,800	1,600,800	3,897,600
Missouri	15	New Madrid, Stoddard, Carter and Butler Counties: Highway 60 Improvements	1,736,000	3,992,800	3,992,800	9,721,600
	16	Southern: Improvement of Rt 65 through Greene Christian and Taney Counties	1,128,000	2,594,400	2,594,400	6,316,800
	101	Blue Springs: Adams Dairy Parkway Project	120,000	276,000	276,000	672,000
	104	Highway 63 improvements, Columbia, Missouri/Iowa border	472,000	1,085,600	1,085,600	2,643,200
	112	Howell County: Improve Highway 63	288,000	662,400	662,400	1,612,800

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Mississippi	24	Franklin/Lincoln Counties: Improvements on Highway 84	760,000	1,748,000	1,748,000	4,256,000
	25	Upgrading of US-98 from County line of Pike and Walthall Counties to Lamar County, MS	32,000	73,600	73,600	179,200
	26	Natchez: Upgrading Highway 61 from Natchez, MS to Louisiana State Line	28,000	64,400	64,400	156,800
	27	Upgrading Highway 84 from Brookhaven, MS to US 49 in Collins, MS	168,000	386,400	386,400	940,800
	56*	Const of a new road from an area in the area of I-59 to Alexandria (P.L. 102-388 sect 405)	0	0	87,356	87,356
North Carolina	2	Boger City: Construction of 4-lane divided hwy along hwy 321 from Boger City to NC-127S.	1,136,000	2,612,800	2,612,800	6,361,600
	39	Asheville: US 19 - 23 improvement project	888,000	2,042,400	2,042,400	4,972,800
	46	I-85 Interchange improvement at State Route 1103 Granville County	136,000	312,800	312,800	761,600
	72	To reimburse the State of North Carolina for construction & repair of the Bonner Bridge	240,000	552,000	552,000	1,344,000
	73	Construct interstate link between I-95 and I-40 in vicinity of Wilson and Goldsboro	712,000	1,637,600	1,637,600	3,987,200
	100	Cumberland: U-2519/X-2 Highways	1,272,000	2,925,600	2,925,600	7,123,200
New Hampshire	37	Winchester: Replacement of Winchester Bridge	64,000	147,200	147,200	358,400
	38	Hanover: Ledyard Bridge Reconstruction	624,000	1,435,200	1,435,200	3,494,400
	47	Manchester: Manchester Airport Road Improvements	320,000	736,000	736,000	1,792,000
	48	Wetlands mitigation package for SR-101/51	800,000	1,840,000	1,840,000	4,480,000
New Mexico	93	Clayton: Raton-Clayton Road	744,000	1,711,200	1,711,200	4,166,400
	94	Jicarilla Apache State Road * FHWA Federal Lands Project *	120,000	276,000	276,000	672,000
New York	3	Utica: Improvement of the Utica North/South Arterial	792,000	1,821,600	1,821,600	4,435,200
	4	Oneida County: Upgrade a highway to 4-lanes	640,000	1,472,000	1,472,000	3,584,000
	70	Wayne County: To improve Rt. 104 from Furnace Road to Pound Road	512,000	1,177,600	1,177,600	2,867,200
	71	Chautauqua Co: 2 additional expressway lanes from Chautauqua Lake Bridge to PA Border	1,360,000	3,126,000	3,128,000	7,616,000

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Ohio	1	Cadiz: Improvements of Short Creek Highway from Cadiz, Ohio to Rayland, Ohio	200,000	460,000	460,000	1,120,000
	19	Clark, Champaign and Logan Counties: US 68 Bypass	1,264,000	2,907,200	2,907,200	7,078,400
	40	Niles: Belmont Street Bridge Replacement	96,000	220,800	220,800	537,600
	41	Struthers: Bridge Street Bridge replacement	96,000	220,800	220,800	537,600
	42	Niles: South Main Street Bridge replacement	200,000	460,000	460,000	1,120,000
	84	Mentor: For construction of an interchange on State Rt.615 at I-90	376,000	864,800	864,800	2,105,600
	86	Medina: Route 18 Bypass Study	32,000	73,600	73,600	179,200
	87	Norwalk: US 250 Bypass Study	32,000	73,600	73,600	179,200
	92	East Canton/Minerva: Route 30 Extension	424,000	975,200	975,200	2,374,400
Oklahoma	5	Southern: Widening of US 70	19,200	44,160	44,160	107,520
	6	Southern: Construction of a bridge and approaches at Pennington Creek, OK	80,000	184,000	184,000	448,000

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Pennsylvania	7	Johnsonburg: Relocation of a 2-lane highway from Center Street to PA Rt. 255 along US 219, Johnsonburg Bypass	1,120,000	2,576,000	2,576,000	6,272,000
	8	Pennsylvania: Construction of truck driving lanes and safety improvements on US 219 between I-80 and the NY State Line	2,080,000	4,784,000	4,784,000	11,648,000
	20	Aliquippa: For various 3-R projects	1,024,000	2,355,200	2,355,200	5,734,400
	52	Bedford Springs: To const an access Rd along Old US 220 to project and to constr other facilities in site. (P.L.102-508 sect 602) & projects in Bedford; Fulton & Huntington Co.	1,576,000	3,624,800	3,624,800	8,825,600
	67	Monongahela Valley: For construction of southernmost extension of Monongahela Xway	1,120,000	2,576,000	2,576,000	6,272,000
	68	Dauphin County: Design, right-of-way and reconstruct 5.1 miles of 4-lane divided highway from Dauphin Borough to Speeceville	960,000	2,208,000	2,208,000	5,376,000
	75	Widen 14 mile segment of US 15 from 2 to 4 lanes	1,104,000	2,539,200	2,539,200	6,182,400
	79	Washington County: Pennsylvania Industrial Park Access	504,000	1,159,200	1,159,200	2,822,400
	80	Southern Fayette County: Chadville Improvement Project	192,000	441,600	441,600	1,075,200
	81	US Rt. 219 Meyersdale Bypass	3,840,000	8,832,000	8,832,000	21,504,000
	82	US Rt. 22 Improvements: Monroeville to Ebensburg	2,424,000	5,575,200	5,575,200	13,574,400
	83	Blairsville: Laurel Valley Expressway	400,000	920,000	920,000	2,240,000
	96	Lehigh County: US 222 Relocation	120,000	276,000	276,000	672,000
	97	Northhampton County: PA 33 Extension	1,344,000	3,091,200	3,091,200	7,526,400
	106	Berks County: Warren St. Extension/US 222 Reconstruction	528,000	1,214,400	1,214,400	2,956,800
	115	Latrobe: Ligonier Street Reconstruction	64,000	147,200	147,200	358,400
	116	Carroltown/DuBois: US 219 Improvements	320,000	736,000	736,000	1,792,000
	117	Robinson Township: Design work in Town Center	400,000	920,000	920,000	2,240,000
South Carolina	85	Greenville Co: Southern Connector Highway	288,000	662,400	662,400	1,612,800
Tennessee	13	Lenoir City: Feasibility Study on Ft Loudon Dam Bridge on US-231	40,000	92,000	92,000	224,000
	14	Blount City: Improvement of US Highway 411 in Monroe and Blount Counties	1,256,000	2,888,800	2,888,800	7,033,600
	69	Rutherford County: Replace existing Br. over west fork of the Stone's River.(P.L. 102-388 sect 379) & related facilities, lands, ...	64,000	147,200	147,200	358,400

RURAL ACCESS PROJECTS SECTION 1106(a) OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Texas	57	Beaumont: Widen Highway FM-364 from a 2-Lane to a 4-lane road	832,000	1,913,600	1,913,600	4,659,200
	59	Laredo: Expand capacity of 2-Lane highway, construct interchanges and connector highway	592,000	1,361,600	1,361,600	3,315,200
	81	Lubbock: Feasibility & route studies, PE, design for highway from Lubbock to I-20	232,000	533,600	533,600	1,299,200
	62	Rosenberg: To purchase right-of-way for Highway 36 bypass West of Rosenberg	72,000	165,600	165,600	403,200
	63	Angleton: For various activities associated with relocation of Highway 288	72,000	165,600	165,600	403,200
	84	Brownsville: Brownsville Railroad Relocation Project	536,000	1,232,800	1,232,800	3,001,600
	110	Port Lavaca to Cuero: Construct upgraded, improved four-lane divided highway.	3,512,000	8,077,600	8,077,600	19,667,200
	111	Parker Co: Upgrade existing State Highway 199 to four-lane divided highway	2,680,000	6,164,000	6,164,000	15,008,000
	114	Travis Co.: Highway 620 Bridge Improvement	912,000	2,097,600	2,097,600	5,107,200
Virginia	109	Prince Edward Co.: widen 2-miles of US 460 to 4 lanes beginning 1 mile S of Farmville	352,000	809,600	809,600	1,971,200
Washington	78	Columbia River Gorge: State Route 14 Improvement Projects	688,000	1,582,400	1,582,400	3,852,800
West Virginia	77	Fairmont: Riverside Expressway improvements	424,000	975,200	975,200	2,374,400
	105	Mason County/Kanawha: Highway Improvements	1,560,000	3,588,000	3,588,000	8,736,000
	118	Chelyan Bridge Replacement	680,000	1,564,000	1,564,000	3,808,000
TOTAL		Totals:	73,650,400	169,395,920	169,395,920	412,442,240

* Multi-State project

URBAN ACCESS AND URBAN MOBILITY PROJECTS IN SECTION 1106(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Arizona	74	Tucson: Veterans Memorial Interchange/Palo Verde Bridge Replacement	192,000	441,600	441,600	1,075,200
California	1	Santa Ana: Bristol Street Project	328,000	754,400	754,400	1,836,800
	7	San Jose: Improvement of Interchange at Highway 85/Highway 17	2,800,000	6,440,000	6,440,000	15,680,000
	8	Gilroy: Safety improvements on Highway 152	472,000	1,085,600	1,085,600	2,643,200
	38	Compton: For a grade separation project at W. Alameda St. and the Mealy St. Corridor	528,000	1,214,400	1,214,400	2,956,800
	41	San Diego: To conduct environmental study on feasibility of constructing 4-lane highway from SR-805 to Mexico border near Otay Mesa	80,000	184,000	184,000	448,000
	46	Commerce: To relocate a portion of Atlantic Blvd. in the vicinity of Telegraph Road as part of a grade separation project	376,000	864,800	864,800	2,105,600
	66	Los Angeles Co: Grade Separation projects (3)	568,000	1,306,400	1,306,400	3,180,800
	71	Anaheim: HOV facilities for I-5 in vicinity of Anaheim Regional Trans. Intermodal Complex	1,184,000	2,723,200	2,723,200	6,630,400
Connecticut	43	Hartford: To rehabilitate State Rt. 99	400,000	920,000	920,000	2,240,000
	44	Hartford: For improved access to Connecticut River as in I-91 Mitigation Project	184,000	423,200	423,200	1,030,400
District of Columbia	10	Washington: Construction of missing segments of Eastern and Southern Avenues	544,000	1,251,200	1,251,200	3,046,400
	70	Design & construction of noise barriers along Southeast/Southwest and Ancostia Freeway	376,000	864,800	864,800	2,105,600
Florida	42	Sarasota: To construct a bridge interchange at US 301 and University Parkway	192,000	441,600	441,600	1,075,200
Georgia	4	Atlanta: Improvement of Martin Luther King Drive	64,000	147,200	147,200	358,400
	72	Atlanta: I-20 Interchange at Lithonia Industrial Boulevard	896,000	2,060,800	2,060,800	5,017,600

URBAN ACCESS AND URBAN MOBILITY PROJECTS IN SECTION 1106(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Illinois	2*	Metro East/St. Louis, Missouri Bridge Feasibility Study. (Illinois & Missouri)	80,000	184,000	184,000	448,000
	5	Chicago: Handicapped Accessibility Projects on various Chicago Streets	192,000	441,600	441,600	1,075,200
	6	Chicago: Feasibility study for a road between existing Lake Shore Drive and Indiana Road	12,800	29,440	29,440	71,680
	13	Joliet: Rehabilitation of Houbolt Rd and construction of I-80/Houbolt Rd Interchange	80,000	184,000	184,000	448,000
	14	Chicago: WPA Street Improvements	296,000	680,800	680,800	1,657,600
	15	Burnham: to improve Dolton Avenue between Torrence Avenue and Indiana State Line	152,000	349,600	349,600	851,200
	16	Calument Park: Ashland Avenue Bridge Replacement	168,000	386,400	386,400	940,800
	17	Harvey: Illinois 1 Interchange improvement from US-6 to I-80	200,000	460,000	460,000	1,120,000
	18	Markham: Sibley Boulevard traffic flow improvement from Dixie Highway	280,000	644,000	644,000	1,568,000
	19	Chicago: Illinois 1 intersection improvement (Harvey: intersection at 155th Street)	112,000	257,600	257,600	627,200
	21*	Lake Porter & LaPort Cos.: Study linkage roads to connect Lake Shore Drive & surrounding facilities. (Illinois & Indiana)	0	0	0	0
	33	Springfield: To extend 11th Street from Stevenson Drive to Toronto Road	664,000	1,527,200	1,527,200	3,718,400
	52	Chicago: Right-of-way preservation projects (Eisenhower & Stevenson Connector)	384,000	883,200	883,200	2,150,400
	53	Chicago: Museum of Science & Industry; various intermodal facilities	2,800,000	6,440,000	6,440,000	15,680,000
	54	Chicago: Skyway Bridge	1,136,000	2,612,800	2,612,800	6,361,600
	55	Chicago: Cermak Road Bridge reconstruction	736,000	1,692,800	1,692,800	4,121,600
	56	Chicago: Roosevelt Road and Bridge Improvements	944,000	2,171,200	2,171,200	5,286,400
	56A	Chicago: State Street Mall Improvements	1,136,000	2,612,800	2,612,800	6,361,600
	57	Chicago: Cicero Avenue Improvements	88,000	202,400	202,400	492,800
	58	Chicago: 183rd Street Reconstruction	120,000	276,000	276,000	672,000
	59	Chicago: 111th Street Reconstruction	200,000	460,000	460,000	1,120,000
	60	Chicago: 111th Street Upgrade; Cicero Avenue to Pulaski Road	200,000	460,000	460,000	1,120,000
	61	Chicago: 111th Street Widening; Central Avenue to Cicero Avenue	376,000	864,800	864,800	2,105,600
Indiana	21*	Lake Porter & LaPort Cos.: Study linkage roads to connect Lake Shore Drive & surrounding facilities. (Illinois & Indiana)	80,000	184,000	184,000	448,000
	22	Acquisition of West Lake Corridor Right-of-way between Munster and Hammond	80,000	184,000	184,000	448,000
	23	Portage: Widen Willow Creek Road to 4 lanes	120 000	276,000	276,000	672,000
	24	Hobart, Lake Station & New Chicago: various improvements to Ridge Road	344,000	791,200	791,200	1,926,400
	62	Muncie: State Rd. 67 Widening	800,000	1,840,000	1,840,000	4,480,000
	63	Columbus Entranceway project	264,000	607,200	607,200	1,478,400

URBAN ACCESS AND URBAN MOBILITY PROJECTS IN SECTION 1106(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority FY 1992	FY 1993	FY 1994	Total FY92-FY94
Massachusetts	30	Lawrence: Study, design, and construct new road service; road, ramps & widen I-495	378,000	864,800	864,800	2,105,600
Maryland	31	Baltimore: To improve various roads as part of project "Project Vision"	400,000	920,000	920,000	2,240,000
	68	Baltimore Co.: Improvement of US 1	944,000	2,171,200	2,171,200	5,286,400
Missouri	2*	Metro East/St. Louis, Missouri Bridge Feasibility Study. (Missouri & Illinois)	0	0	0	0
Nebraska	39	Omaha: For improvements to US 6 from 86th St to 118th and intersection with I-680	416,000	956,800	956,800	2,329,600
New Jersey	25	Passaic Co: Complete construction of Rt-21	7,904,000	18,179,200	18,179,200	44,262,400
	26	Northeastern NJ: To raise 14 bridges over Molly Ann's Brook	760,000	1,748,000	1,748,000	4,256,000
	28	Newark: To construct ramps to provide access to I-78	576,000	1,324,800	1,324,800	3,225,600
	29	Newark: To construct a parking facility as part of a multi-modal transportation facility near United Hospitals Medical Center	392,000	901,600	901,600	2,195,200
	34	Middlesex: Route 1 widening in Middlesex Co. from Raritan River to Rahway River	592,000	1,361,600	1,361,600	3,315,200
	35	Perth Amboy & Woodbridge Township: Study whether additional river crossings required	200,000	460,000	460,000	1,120,000
	37	Parsippany, Troy Hills: Construct interchange and ramp improvements on I-280	248,000	570,400	570,400	1,388,800
	64	Paramus: Rt. 17/4 Interchange Project	456,000	1,048,800	1,048,800	2,553,600
	65	Hackensack: Hackensack Avenue/Kinderkamack Road Bridges over Route 4	456,000	1,048,800	1,048,800	2,553,600
	69	Camden: Renovation of South Jersey Port Corporation Beckett Street Terminal	664,000	1,527,200	1,527,200	3,718,400
New York	9	New York: Improvements on Miller Highway	1,248,000	2,870,400	2,870,400	6,988,800
	11	Buffalo: Scajaquada Expressway Classification Study	19,200	44,160	44,160	107,520
	12	Buffalo: NY State Thruway relocation study	19,200	44,160	44,160	107,520
	38	Queens: To rehabilitate 39th Street Bridge over rail tracks at the Sunnyside Rail Yard	832,000	1,913,600	1,913,600	4,659,200
	40	Suffolk Co/Long Island: Construct various roadway improvements on 7.1 miles of SR-112	272,000	625,600	625,600	1,523,200
	48	Long Island: Southern State Parkway Improvement	368,000	846,400	846,400	2,060,800
	49	Schenectady: Exit 26 Bridge Project	456,000	1,048,800	1,048,800	2,553,600
	67	Staten Island: Preservation of Rail Corridor - North Shore Rail Line	856,000	1,968,800	1,968,800	4,793,600
	73	Buffalo: Southtowns Connector	680,000	1,564,000	1,564,000	3,808,000
Ohio	20	Youngstown: Center Street Bridge replacement, including Poland Avenue - Shirley Road connector and ramps at I-680	976,000	2,244,800	2,244,800	5,465,600

URBAN ACCESS AND URBAN MOBILITY PROJECTS IN SECTION 1106(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Pennsylvania	3	Beaver & Butler Cos: Construction of Crow's Run Expressway from I-79 to PA Rt. 60	280,000	644,000	644,000	1,568,000
	27	Chambersburg: To improve the Wayne Avenue - I-81 interchange and to widen Wayne Avenue to 5 lanes from I-81 to Coldbrook Avenue	147,200	338,560	338,560	824,320
	47	Scranton: Realign 3,000 feet of N. Scranton Expressway to connect with Mulberry St.	576,000	1,324,800	1,324,800	3,225,600
Rhode Island	75	Providence: Memorial Boulevard Pedestrian/ Traffic Improvements	400,000	920,000	920,000	2,240,000
Tennessee	45	Chattanooga: Construct an urban diamond interchange and a connector road	248,000	570,400	570,400	1,388,800
Utah	51	Expansion of State Road 5600 West	264,000	607,200	607,200	1,478,400
Virginia	50	Northern Virginia: Upgrade I-495 interchanges including Virginia Mixing Bowl Improvements	600,000	1,380,000	1,380,000	3,360,000
Washington	32	Bellevue: Conduct Phase I design study for I-405 interchange at NE 8th Street	400,000	920,000	920,000	2,240,000
	76	Renton: Houser Way Relocation Expansion	240,000	552,000	552,000	1,344,000
TOTAL			44,494,400	102,337,120	102,337,120	249,168,640

* Mulit-State project.

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Alabama	30	Mobile: Reconstruction of West Tunnel Plaza interchange on I-10	1,200,000	2,780,000	2,760,000	6,720,000
	35	Montgomery: Construct 4-lane bypass to connect I-65 and I-85	944,000	2,171,200	2,171,200	5,286,400
	80	Tuscaloosa Co: Black Warrier River Bridge	512,000	1,177,600	1,177,600	2,867,200
	124	Patton Island Bridge Project	376,000	864,800	864,800	2,105,600
	192	Improvements to Anniston Eastern Bypass near US-431, and between SH-21 and I-20	880,000	2,024,000	2,024,000	4,928,000
Arkansas	100	North Belt Freeway project (N. Little Rock)	712,000	1,637,600	1,637,600	3,987,200
California	12	Oceanside: Construction of A, B, and C segments of SR 76	1,152,000	2,649,600	2,649,600	6,451,200
	13	Carlsbad: Improvements at interchange at Palomar Airport Rd. and I-5	272,000	625,600	625,600	1,523,200
	37	Los Angeles: Prel. work to enhance capacity of I-5 from downtown to SR 61 interchange	536,000	1,232,800	1,232,800	3,001,600
	61	Mojave: Reconstruct bridge to Caltrans height standards	144,000	331,200	331,200	806,400
	71	San Benito: Rt. 156 Hollister Bypass	72,000	165,600	165,600	403,200
	72	Monterey: Rt. 101, Prunedale (Bypass)	336,000	772,800	772,800	1,881,600
	82	Union City: I-880/Alvarado-Niles Road Interchange	760,000	1,748,000	1,748,000	4,256,000
	86	Bakersfield: Route 58 Improvements	376,000	864,800	864,800	2,105,600
	87	Santa Fe Springs: Norwalk Boulevard grade separation	376,000	864,800	864,800	2,105,600
	116	West Sacramento: Industrial Blouleverd Bridge over Sacramento River Barge Canal	664,000	1,527,200	1,527,200	3,718,400
Connecticut	198	Rehabilitate or replace Gold Star bridge over Thames River between New London & Gorton, Bridge over Yellow Mill Channel in Bridgeport, Tomlinson Bridge in New Haven	4,960,000	11,408,000	11,408,000	27,776,000
District of Columbia	98	Hybrid Fuel Cell	288,000	662,400	662,400	1,612,800
	201	Advanced composite bridge deck demo at Catholic University	16,000	36,800	36,800	89,600
Florida	28	Brevard Co: Design, acquire ROW & construct a widened bridge on SR 3 over Barge Canal	552,000	1,269,600	1,269,600	3,091,200
	43	Hillsborough: Widen and improve safety of I-4 from Tampa to Hillsborough Co. line	1,960,000	4,508,000	4,508,000	10,976,000
	196	Orlando: Land & right-of-way acquisition & guideway construction for MAGLEV project	7,800,000	17,940,000	17,940,000	43,680,000
Georgia	10	Atlanta: Transportation improvements for 1996 Olympics and IVHS traffic mangement system	4,648,000	10,690,400	10,690,400	26,028,800
	202	Georgia: Any highway improvement projects eligible for funding under title 23	2,160,000	4,968,000	4,968,000	12,096,000
Hawaii	203	Hawaii: Any highway improvement projects eligible for funding under title 23	480,000	1,104,000	1,104,000	2,688,000
Idaho	80	Lewiston: Improve Bryden Canyon Road	424,000	975,200	975,200	2,374,400
	187	Plummer: Reconstruct 3 segments of SH-5,	288,000	662,400	662,400	1,612,800

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
		totaling about 5.3 miles in length				
Idaho *(continued)*	188	Lemhi County: Reconstruct 8.3 miles of US-93 at the Idaho/Montana border * FHWA Federal Lands Project *	2,048,000	4,710,400	4,710,400	11,468,800
	189	St. Maries: Rehabilitate existing 14.2 miles of pavement on FH 50 * FHWA Federal Lands Project *	272,000	625,600	625,600	1,523,200
	190	Lewiston: Construct 2.4 miles of new road along FAU 7344 in Bryden Canyon	312,000	717,600	717,600	1,747,200
	191	Bear Lake County: Reconstruct 13 miles of US-89 between Montpelier and Geneva	1,480,000	3,404,000	3,404,000	8,288,000
Illinois	11	Chicago: Computerized infrastructure management systems	344,000	791,200	791,200	1,926,400
	15	Mokena: Construction of Wolf Road between Laport Road and US 30	112,000	257,600	257,600	627,200
	16	Village of Frankfort: Roadway Improvement Projects	104,000	239,200	239,200	582,400
	17	Plainfield: Replacement of E J & E Viaduct over IL Route 59 and Dupage River Tributary	80,000	184,000	184,000	448,000
	18	Romeoville: Replacement of 135th St. Bridge	472,000	1,085,600	1,085,600	2,643,200
	32	Galina: Conduct environmental, PE & design studies to widen 47 miles of US 20 to 4-lanes	160,000	368,000	368,000	896,000
	38	Mendon: Construct 14.8 miles of Highway 336 from Rt. 61 near Mendon to West Point Road	400,000	920,000	920,000	2,240,000
	66	Jacksonville: US 67 Jacksonville Bypass	1,264,000	2,907,200	2,907,200	7,076,400
	95	DuQuoin Highway Bridge	208,000	478,400	478,400	1,164,800
	96	Tamarack Street extension	48,000	110,400	110,400	268,800
	102	Replace 5.3 miles of Illinois 17 from 0.2 mi west of Splear Road to Illinois 1	144,000	331,200	331,200	806,400
	103	Leroy: US 150 replacement, north of Hemlock St. to south of Gilmore St.	80,000	184,000	184,000	448,000
	104	Ford Co: Replace 8.0 miles of US 24 from 1.1 mi. east of Forrest to Ford Co. line	144,000	331,200	331,200	806,400
	105	Watseka: US 24 replacement from Crescent City to Illinois 1	200,000	460,000	460,000	1,120,000
	106	Emington: Emington Spur Road replacement from Illinois 47 to Emington	52,000	119,600	119,600	291,200
	107	New Lenox Road improvement	200,000	460,000	460,000	1,120,000
	108	Shorewood Roadway improvements	104,000	239,200	239,200	582,400
	109	Chicago: Painting of various moveable bridges	224,000	515,200	515,200	1,254,400
	111	Chicago: 3R work on historic 28 mile Boulevard	432,000	993,600	993,600	2,419,200
	119	Calumet City: Reconstruction of 156th St. & 156th Place from Buckham Ave. to State line	104,000	239,200	239,200	582,400
	120	Frankfort Township: Improvement of streets	80,000	184,000	184,000	448,000
	121	Matteson: I-57 bridge improvements	288,000	662,400	662,400	1,612,800
	122	Road improvements - US 150/IL 1 from Belgium to south of Westville	304,000	699,200	699,200	1,702,400
	123	Road improvements - US 45 from Savoy to Tolono	448,000	1,030,400	1,030,400	2,508,800
	137	Improvements on the Kennedy Expressway Note 1/3 of money in 92, 93 and 94.	58,333,333	58,333,333	58,333,334	175,000,000

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Indiana	64	Contruct extension of I-69 to link Evansville and Indianapolis	304,000	699,200	699,200	1,702,400
	97	East Chicago Marina Access Road	680,000	1,564,000	1,564,000	3,808,000
Iowa	62	Fremont Co: Construction of IA Highway 2 from Sidney to I-29	696,000	1,600,800	1,600,800	3,897,600
	63	Council Bluffs: Variety of improvements to Valley View Corridor	80,000	184,000	184,000	448,000
	69	Highway. 63 improvements from Waterloo to New Hampton	1,208,000	2,778,400	2,778,400	6,764,800
Kansas	44	Wichita: Construct 6-lane access control highway & interchange at Oliver St.	528,000	1,214,400	1,214,400	2,956,800
	154	Widen US-81 Belleville to Concordia	560,000	1,288,000	1,288,000	3,136,000
	155	Hutchinson: Construction of Huchinson Bypass between US-50 and K-96	1,952,000	4,489,600	4,489,600	10,931,200
Maine	68	Portland: Portland-S. Portland Bridge	10,760,000	24,748,000	24,748,000	60,256,000
Maryland	2	Harford Co: Construction of Durham Road Bridge # 75	40,000	92,000	92,000	224,000
	3	Harford Co: Construction of replacement bridge at Furnace Road Bridge # 74	48,000	110,400	110,400	268,800
	4	Harford Co: Construction of replacement bridge at South Hampton Road Bridge # 47	80,000	184,000	184,000	448,000
	5	Harford Co: Construction of replacement bridge at Wheel Road Bridge # 9	80,000	184,000	184,000	448,000
	6	Harford Co: Construction of replacement bridge at Watervale Bridge # 63	88,000	202,400	202,400	492,800
	7	Baltimore Co: Replacement of Papermill Road Bridge # 123 in Cockeysville area	424,000	975,200	975,200	2,374,400
	24*	Relocate railroad between Hagerstown, MD and Shippensburg, PA to eliminate 23 RR X-ings (Maryland & Pennsylvania)	0	0	0	0
	117	Baltimore Co: I-695 improvements	1,912,000	4,397,600	4,397,600	10,707,200
Michigan	33	Areneck Co: Improve 12 miles of US 23 between Rt. 13 and Rt. 65	376,000	864,800	864,800	2,105,600
	47	Grand Rapids: construct bypass connecting I-96 and I-196	552,000	1,269,600	1,269,600	3,091,200
	53	Genesee: Widen and improve pavement in Mundy Township from Baldwin Rd. to Cook Rd.	12,800	29,440	29,440	71,680
	54	Flint: Design & construct improved and widened 5-lane road	40,000	92,000	92,000	224,000
	55	Flint: Design & construct 1.02 miles of 5-lane roadway	72,000	165,600	165,600	403,200
	56	Flint: ROW acquisition, relocation, & construction of Bristol Road	248,000	570,400	570,400	1,388,800
	89	Traverse City: Traverse City Bypass	360,000	828,000	828,000	2,016,000
	112	Cadillac: Improvements to US 131 from Cadillac to Manton to Traverse City	336,000	772,800	772,800	1,881,600

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Minnesota	61	Brooklyn Park: Highway 610 Crosstown Project	2,880,000	6,624,000	6,624,000	16,128,000
	126	Completion of Cross-Range Expressway (Trunk Highway 169)	1,040,000	2,392,000	2,392,000	5,824,000
	127	Hinckley: Safety & capacity improvements to Trunk Highway 48 & relocate County Road 134	160,000	368,000	368,000	896,000
	128	Trunk Highway 53 from Twig to Trunk Highway 37	760,000	1,748,000	1,748,000	4,256,000
	129	Trunk Highway 169 from Grand Rapids to High City	720,000	1,656,000	1,656,000	4,032,000
	130	Trunk Highway 61 from Schroeder to Grand Marais	1,440,000	3,312,000	3,312,000	8,064,000
	133	Trunk Highway 37 and Hughes Road	40,000	92,000	92,000	224,000
	158	Hennepin County: Bloomington Ferry Bridge & C.S.A.H. 18 replacement project	1,440,000	3,312,000	3,312,000	6,064,000
	159	Nicollet Co: C.S.A.H. 41 for roadway stabilization and rockfall control - North Mankato	240,000	552,000	552,000	1,344,000
	160	St. Cloud: Trunk Highway 15 bridge over Mississippi River & interchange with T.H. 10	259,200	596,160	596,160	1,451,520
	161	MN Safety Initiative Program - pavement marking and elastomer modified asphalt	240,000	552,000	552,000	1,344,000
Missouri	40	Jefferson Co: Widen I-55 between Rt. M and Rt. 67	408,000	938,400	938,400	2,284,800
	41	Jefferson Co: Upgrade 7.9 miles of Missouri Highway 21	408,000	938,400	938,400	2,284,800
	42	St. Louis: Construct a 4-lane outer beltway connecting I-55 and I-44	608,000	1,398,400	1,398,400	3,404,800
Mississippi	85	Pascagoula: US 90 improvements including 6-lane bridge and approaches	344,000	791,200	791,200	1,926,400
Montana	194	Billings: Construction of Shilo I-90 Interchange	880,000	2,024,000	2,024,000	4,928,000
	195	Missoula: Construction of Missoula Airport I-90 interchange	560,000	1,288,000	1,288,000	3,136,000
Nebraska	50*	Springfield: Plan, engineer, & contruct bridge accross Missouri River connecting SD Rt 37 to NE Hwy 12. (S. Dakota & Nebraska)	376,000	864,800	864,800	2,105,600
	51*	Vermillion: Engineer & contruct bridge across Missouri River. (S. Dakota & Nebraska)	0	0	0	0
Nevada	90	Elko Co: Lamoille Highway widening	192,000	441,600	441,600	1,075,200
	91	Reno: US 395 Extension	1,184,000	2,723,200	2,723,200	6,630,400
	92	Carson City: Carson City Bypass	608,000	1,398,400	1,398,400	3,404,800
New Hampshire	152	Study of corridor protection for NH Route 16	160,000	368,000	368,000	896,000
	153	North Conway: Provide congestion relief on US-302 and NH Route 16	504,000	1,159,200	1,159,200	2,822,400
New Jersey	73	Newark: Rt. 21 Viaduct	1,184,000	2,723,200	2,723,200	6,630,400
	74	Newark: Widening of Rt. 21	1,112,000	2,557,600	2,557,600	6,227,200
	125	Bourough of Paulsboro: Construction of a new bridge to improve safety	216,000	496,800	496,800	1,209,600

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
New York	48	Suffolk Co: Selective black topping through high noise road segments	160,000	368,000	368,000	896,000
	49	Suffolk Co: Evaluate composting and recycling use on Federal-aid highways	32,000	73,600	73,600	179,200
	59	Amherst & Erie Cos.: Widen 2 miles of Rt. 263 and rehabilitate 4 miles of Rt. 78	608,000	1,398,400	1,398,400	3,404,800
	146*	Contruction of a highway from US-7 North of Bennington southwest to NY-7 in Hoosick, NY (New York & Vermont)	0	0	0	0
	162	New York: Hell Gate Viaduct - upgrade, repair and paint. (Administered by FRA)	4,400,000	10,120,000	10,120,000	24,640,000
	163	New York: Reconstruction of ferry landing within Battery Park	160,000	368,000	368,000	896,000
	164	New York: Foley Square Plaza transportation improvements and construction activities	420,000	966,000	966,000	2,352,000
	165	New York: Reconstruct & improve sections of Franklin Delano Roosevelt Drive	800,000	1,840,000	1,840,000	4,480,000
	166	Corning Bypass improvements	880,000	2,024,000	2,024,000	4,928,000
	193	Corning Bypass; excess fund may be used to widen Route 17 near PA border	192,000	441,600	441,600	1,075,200
	200	Binghamton: Feasibility studing on rehabilitation of South Washington Street Bridge	40,000	92,000	92,000	224,000
North Carolina	75	Chatham & Wake Cos: US 64 Widening	424,000	975,200	975,200	2,374,400
	113	Durham Co.: Accelerated construction of 4-lane freeway on Rt. 147	3,064,000	7,047,200	7,047,200	17,158,400
	199*	Design & construct freeway from Rocky Mount to Elizabeth City, upgrade I-64 from Raleigh to Rocky Mount, & Route 17 from Elizabeth City to Norfolk. (N. Carolina & Virginia)	2,400,000	5,520,000	5,520,000	13,440,000

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority FY 1992	FY 1993	FY 1994	Total FY92-FY94
North Dakota	36	Design state-wide off-system bridge management system and began repairs	712,000	1,637,600	1,637,600	3,987,200
	167	Nelson County: Grading & surfacing from US 2 to ND Hwy 15 @ McVille & on FAS 3220 from ND 1 to Co line. (See P.L. 102-388 sect 401)	680,000	1,564,000	1,564,000	3,808,000
	168	Stutsman County: Surfacing of I-94 N & E at Spiritwood then N to ND Hwy 9, FAS 3718 from ND 20 E to FAS 4745 & FAS 4712 from ND 20 to ND 9 (P.L. 102-388 sect 401 changed project)	320,000	736,000	736,000	1,792,000
	169	Steele & Griggs Cos: Garding & surfacing of FAS 4612 & FAS 2012 from ND 32 to ND 45	232,000	533,600	533,600	1,299,200
	170	Grand Forks County: Surfacing of FAS 1822 from FAS 1833 to I-29, FAS 1812 from FAS 1833 to I-29; & FAS 1833 from FAS 1824 to ND 15	208,000	478,400	478,400	1,164,800
	171	Richland County: Grading & surfacing from Wahpeton to the Froedtert Malting Plant	48,000	110,400	110,400	268,800
	172	Ward & McHenry Cos: Grading & surfacing FAS 5158 & FAS 2546 from US 63 to ND 41	360,000	828,000	828,000	2,016,000
	173	Bottineau County: Grading & surfacing from Bottineau to ND 43	192,000	441,600	441,600	1,075,200
	174	McKenzie Co: Grading & surfacing of FAS 2750 from US-85 west (See P.L. 102-388 sect 401)	184,000	423,200	423,200	1,030,400
	175	Wells County: Grading & surfacing of FAS 5215	200,000	460,000	460,000	1,120,000
	176	Traill County: Grading & surfacing of FAS 4916 from ND 200 east to the Red River	224,000	515,200	515,200	1,254,400
	177	Eddy County: Grading & surfacing of FAS 1404 and FAS 1427	200,000	460,000	460,000	1,120,000
	178	Renville & Ward Cos: Grading & surfacing of FAS 3828 ... (See P.L. 102-388 sect 401)	72,000	165,600	165,600	403,200
	179	Morton Co: Grad & surf of FAS 3025 & 3020 at ND 49 SE to FAS 3033 (P.L. 102-388 sect 401)	248,000	570,400	570,400	1,388,800
	180	Walsh County: Surfacing of FAS 5017 and FAS 5022	200,000	460,000	460,000	1,120,000
	181	Dickey County: Grading & surfacing of FAS 1112, FAS 1111, FAS 1137	320,000	736,000	736,000	1,792,000
	182	Burke County: Grading & surfacing of FAS 0717 from Lignite south to ND 50	352,000	809,600	809,600	1,971,200
	183	Morton Co: Bypass around W of Ft. Lincoln St Park from Mandan So (P.L. 102-388 sect 401)	256,000	588,800	588,800	1,433,600
	184	Rolette Co: Grading & surfacing from US 281 around access loop Rd & parking facility in Int Peace Garden (P.L. 102-388 sect 401)	152,000	349,600	349,600	851,200
	185	Oliver Co: Grad & surf of FAS 3331 from ND 200A at Hensler S. to ND 25 & FAS 3304 from FAS 3331 E to FAS 3339(P.L. 102-388 sect 401)	232,000	533,600	533,600	1,299,200
	186	Williams County: Grading & surfacing at County Road 5 from US-2 southerly to ND 1804	200,000	460,000	460,000	1,120,000
Ohio	1	Cadiz to St. Clairsville: Construction of a 4-lane limited access highway along US 250	1,600,000	3,680,000	3,680,000	8,960,000
	65	Aberdeen: US 62/68 Ohio River Bridge	1,240,000	2,852,000	2,852,000	6,944,000
	70	Brook Park: Aerospace Technology Park Access Road	1,136,000	2,612,800	2,612,800	6,361,600
	78	Akron: Kelly Avenue extension	760,000	1,748,000	1,748,000	4,256,000
	93	Franklin Co: I-270 North Outerbelt widening	816,000	1,876,800	1,876,800	4,569,600
	99	Rehabilitation of Bridge on US 224 near State Route 618	80,000	184,000	184,000	448,000
	197	Toledo: Design & construction of I-280 Maumee River Bridge to replace Craig Memorial Bridge	2,960,000	6,808,000	6,808,000	16,576,000

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Oklahoma	8	Southern: Test effectiveness of recyclable materials on resurfacing of US 70	168,000	386,400	386,400	940,800
	9	Tulsa: Upgrade US 75 to expressway standards	1,120,000	2,576,000	2,576,000	6,272,000
	204	Oklahoma: Any highway improvement projects eligible for funding under title 23	4,720,000	10,856,000	10,856,000	26,432,000
Oregon	57	Salem: Contruct Salem Bypass	480,000	1,104,000	1,104,000	2,688,000
Pennsylvania	19	Borough of Water Street: Construction of a 2-lane bypass on US 22	640,000	1,472,000	1,472,000	3,584,000
	20	Borough of Hollidaysburg: Relocate US 22 around Hollidaysburg	4,160,000	9,568,000	9,568,000	23,296,000
	21	Lewistown: Safety improvements for rock slides on the Narrows	128,000	294,400	294,400	716,800
	22	Lewistown: Relocate US 22 north of Lewistown	4,664,000	10,727,200	10,727,200	26,118,400
	23	Reedsville: Construction of a 4-lane highway between Reedsville and Seven Mountains	2,808,000	6,458,400	6,458,400	15,724,800
	24*	Relocate railroad between Hagerstown, MD and Shippensburg, PA to eliminate 23 RR X-ings (Maryland & Pennsylvania)	1,152,000	2,649,600	2,649,600	6,451,200
	25	Roaring Springs: Add center turning lane on PA 36 from US 220 to Roaring Springs	704,000	1,619,200	1,619,200	3,942,400
	26	Altoona: Widen and extend Chestnut Avenue from Altoona to Juniata	569,600	1,310,080	1,310,080	3,189,760
	27	Bedford Co: Widen Rt. 30 from the Narrows in Bedford to Mt. Dallas	3,840,000	8,832,000	8,832,000	21,504,000
	31	Widen US 202 from King of Prussia to Montgomeryville	712,000	1,637,600	1,637,600	3,987,200
	52	Wilkes-Barre and Mountaintop: Design and construct two exits off I-81	1,336,000	3,072,800	3,072,800	7,481,600
	58	Montgomeryville: Improve US 202 from Montgomeryville to Doylestown	864,000	1,987,200	1,987,200	4,838,400
	79	Exton: Exton Bypass	2,144,000	4,931,200	4,931,200	12,006,400
	110	Huntingdon Co.: Jacobs Timber Bridge over Greater Trough Creek	28,000	64,400	64,400	156,800
	134	Route 120 widening in the vicinity of Lock Haven	320,000	736,000	736,000	1,792,000
	135	Replace US-15 bridge across the Tioga River	256,000	588,800	588,800	1,433,600
	136	Wysox Narrows Road (US-6)	240,000	552,000	552,000	1,344,000
	145	Applied technology demonstration in advanced driver information systems:University of Arts	160,000	368,000	368,000	896,000

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Rhode Island	140	Design & construction of stormdrain retrofit on I-95 and other highway runoff programs	1,040,000	2,392,000	2,392,000	5,824,000
	141	Historic renovation and development of intermodal center at Kingston RR station	160,000	368,000	368,000	896,000
	142	Lincoln & Cumberland: Historic rehab of Albion Bridge and Albion Trench Bridge	160,000	368,000	368,000	896,000
	143	Newport: To develop the marine mode of the intermodal Gateway Transportation Center	480,000	1,104,000	1,104,000	2,688,000
	144	Bristol: road improvements	160,000	368,000	368,000	896,000
	147	Woonsocket: Constuction of Route 99 Extension	156,800	360,640	360,640	878,080
	148	Woonsocket: Repaving streets	112,000	257,600	257,600	627,200
	149	Woonsocket: Improvements to 3 bridges crossing the Blackstone River	28,000	64,400	64,400	156,800
	150	Cranston: Reconstruction & repaving Park Ave, Sockanossett Crossroads, Olney Arnold Road, South Comstock Parkway, Wildflower Drive, Aqueduct Road and Mapleton Street	456,000	1,048,800	1,048,800	2,553,600
	151	For Operating expenses of the Rhode Island Public Transit Authority. (Admin by FTA)	1,440,000	3,312,000	3,312,000	8,064,000
South Carolina	84	Myrtle Beach: Carolina Bays Parkway	472,000	1,085,600	1,085,600	2,643,200
	138	Southern Connector Highway improvements in Greenville Co: Highway 17 Bridge replacement over the Cooper River in Charleston; Carolina Bays Parkway improvements in Myrtle Beach	880,000	2,024,000	2,024,000	4,928,000
	139	Rail Corridor Revitalization in Columbia	320,000	736,000	736,000	1,792,000
South Dakota	50*	Springfield: Plan, engineer, & contruct bridge accross Missouri River connecting SD Rt 37 to NE Hwy 12. (S. Dakota & Nebraska)	0	0	0	0
	51*	Vermillion: Engineer & contruct bridge across Missouri River. (S. Dakota & Nebraska)	288,000	662,400	662,400	1,612,800
Tennessee	76	Sullivan Co: I-81/Industrial Park South Interchange	464,000	1,067,200	1,067,200	2,598,400
	77	Foothills Parkway from Pittman Center to Cosby - ** FHWA Federal Lands Project **	896,000	2,060,800	2,060,800	5,017,600
Texas	34	Brooks, Jim Wells, & Live Oaks Cos: Upgrade US 281 to the Mexican Border	2,208,000	5,078,400	5,078,400	12,364,800
	101	Ft. Worth: I-35 Basswood interchange	1,424,000	3,275,200	3,275,200	7,974,400
	114	Corpus Christi to Angleton: Construct new multi-lane freeway (SH-35 corridor)	3,336,000	7,672,800	7,672,800	18,681,600
	115	Fort Worth: Overpass and frontage road at Fort Worth Hillwood/I-35 Interchange	1,016,000	2,336,800	2,336,800	5,689,600
Utah	45	Brigham City: Construct interchange on I-15 at Forest St.	288,000	662,400	662,400	1,612,800
	46	Davis & Weber Cos: Upgrade US 89	240,000	552,000	552,000	1,344,000

INNOVATIVE PROJECTS IN SECTION 1107(b) OF THE ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Virginia	14	Danville: Replace bridges on Main and Worsham Streets	800,000	1,840,000	1,840,000	4,480,000
	29	Blacksburg: Construct 8 mile 4-lane highway to demonstrate IVHS	472,000	1,085,600	1,085,600	2,643,200
	118	Hampton Roads: I-64 crossing of Hampton Roads	472,000	1,085,600	1,085,600	2,643,200
	157	Statewide: 4R, safety improvements, and modernization of Virginia Interstate System	5,080,000	11,684,000	11,684,000	28,448,000
	199*	Design & construct freeway from Rocky Mount to Elizabeth City, upgrade I-64 from Raleigh to Rocky Mount, & Route 17 from Elizabeth City to Norfolk. (N. Carolina & Virginia)	0	0	0	0
Vermont	146*	Contruction of a highway from US-7 North of Bennington southwest to NY-7 in Hoosick, NY (Vermont & New York)	1,600,000	3,680,000	3,680,000	8,960,000
Virgin Islands	94	St. Thomas: Feasibility study to construct second road to west end of island	136,000	312,800	312,800	761,600
Washington	39	Bryden: Construct 3 miles of highways connecting Clarkston, WA, and Lewiston, ID	312,000	717,600	717,600	1,747,200
	67	Snohomish Co: HOV lanes	520,000	1,196,000	1,196,000	2,912,000
	83	Merrysville: I-5/88th St. Interchange Improvements	152,000	349,600	349,600	851,200
	88	Hoquiam: Gray's Harbor Industrial Corridor Bridge	376,000	864,800	864,800	2,105,600
Wisconsin	131	Improvements to Highway 41 from Oshkosh to Green Bay	3,336,000	7,672,800	7,672,800	18,681,600
	132	Improvements to Highway 29 from Chippewa Falls to State Trunk Highway 73	2,264,000	5,207,200	5,207,200	12,878,400
Wyoming	156	Wyoming: Reconstruction of county roads not on the State Highway system	1,600,000	3,680,000	3,680,000	8,960,000
		Totals:	232,851,733	459,725,653	459,725,654	1,152,303,040

* Multi-State Projects.

PRIORITY INTERMODAL PROJECTS IN SECTION 1108 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
American Samoa	22	America Samoa: Rehabilitate 8 miles of Tau Road from Falessao to Fatuita	88,000	202,400	202,400	492,800
	23	Manu's Is., America Samoa: Improve 8 miles of roadway from Ofu to Olosfaga and Slie	96,000	220,800	220,800	537,600
California	1	Long Beach: Interchange at of Terminal Island Freeway and Ocean Blvd.	944,000	2,171,200	2,171,200	5,286,400
	2	Wilmington: Widening of Anaheim St. Viaduct	944,000	2,171,200	2,171,200	5,286,400
	3	Wilmington: Grade separation project of Pacific Coast Highway near Alameda St	944,000	2,171,200	2,171,200	5,286,400
	4	Compton City: Widening of Alameda St. & grade separation between Rt. 91 and Del Amo Blvd.	944,000	2,171,200	2,171,200	5,286,400
	13	Purchase right-of-way, develop transportation corridor Larkspur to Koble, Novato to Lombard	1,208,000	2,778,400	2,778,400	6,764,800
	15	Los Angeles: Multi-modal transit parkway on Santa Monica Blvd. from I-405 to US 101	712,000	1,637,600	1,637,600	3,987,200
	18	Ontario: Complete construction of access roads to Ontario Airport	376,000	864,800	864,800	2,105,600
	21	San Jose: Upgrade Rt. 87 & local circulation system for San Jose Airport	1,184,000	2,723,200	2,723,200	6,630,400
	30	Oxnard: Extend Rice Road, widen Hueneme Road and contruct interchange	712,000	1,637,600	1,637,600	3,987,200
	31	Los Angeles: Improve ground access from Sepulveda Blvd. to Los Angeles	716,000	1,646,800	1,646,800	4,009,600
	36	Palmdale: Avenue P8 improvements	288,000	662,400	662,400	1,612,800
	46	Carson & Los Angeles Cos: Grade separation at Sepulveda Blvd and Alameda St	760,000	1,748,000	1,748,000	4,256,000
	51	Long Beach: Airport Access	680,000	1,564,000	1,564,000	3,808,000
Connecticut	9	East Haven Route 80, Wallingford I-91 and Wallingford Oakdale	808,000	1,858,400	1,858,400	4,524,800
Florida	16	Jacksonville: Construct new I-295 interchange and access road to seaport/airport	568,000	1,306,400	1,306,400	3,180,800
Georgia	11	Atlanta: Study of 5-Points Intermodal Terminal	192,000	441,600	441,600	1,075,200
	48	Augusta: Railroad overpass at 15th St and Greene St	472,000	1,085,600	1,085,600	2,643,200
Illinois	50	I-255 interchange	272,000	625,600	625,600	1,523,200
Indiana	37	Lafayette: Railroad Relocation Project	1,944,000	4,471,200	4,471,200	10,886,400
	45	Gary: Extension of US 12/20 to Lake Michigan	176,000	404,800	404,800	985,600
Louisiana	49	Saint Bernard Intermodal Facility Engineering, Design, Construction	816,000	1,876,800	1,876,800	4,569,600
Michigan	6	Detroit: Van Dyke St ($1.0 M) and a depressed road under Detroit City Airport runway	344,000	791,200	791,200	1,926,400
	25	Detroit: Construct access road to Detroit Metro Airport including link to I-275	2,704,000	6,219,200	6,219,200	15,142,400
Minnesota	40	Minneapolis: Intermodal Urban connection project	1,592,000	3,661,600	3,661,600	8,915,200

PRIORITY INTERMODAL PROJECTS IN SECTION 1108 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Missouri	10	St. Louis: Rehabilitation of Eads Bridge	712,000	1,637,600	1,637,600	3,987,200
	27	St. Louis: Multi-modal transportation facility	472,000	1,085,600	1,085,600	2,643,200
	41	Kansas City: Bruce Watkins Roadway Improvements	112,000	257,600	257,600	627,200
	42	Kansas City: Smith Riverfront Expressway	1,016,000	2,336,800	2,336,800	5,689,600
Mississippi	34	I-20 interchange at Pirate Cove Road	272,000	625,600	625,600	1,523,200
	35	Jackson: Jackson Airport connectors	248,000	570,400	570,400	1,388,800
Nevada	17	Las Vegas: Conduct EIS & prel. engr for beltway & linking I-15 to McCarran Airport (P.L. 102-388 Section 369 changed project)	304,000	699,200	699,200	1,702,400
New York	12	Buffalo: Buffalo River/Gateway Tunnel Project	1,616,000	3,716,800	3,716,800	9,049,600
	28	Orange & Rockland: Construct park & ride facilities, establish traffic management sys.	376,000	864,800	864,800	2,105,600
	32	Mt. Vernon: Construct intermodal facility at Mt. Vernon Rail Station	568,000	1,306,400	1,306,400	3,180,800
	33	Orange Co: I-87A-84 Stuart Airport Interchange Project	1,256,000	2,888,800	2,888,800	7,033,600
Oklahoma	7	Ardmore: Study of upgrading SR 53 off US 35 leading to improved airport	200,000	460,000	460,000	1,120,000
Oregon	14	Widen 2.7 mi. of US 26 to add highway lanes and light rail	1,136,000	2,612,800	2,612,800	6,361,600
	43	Portland: Columbia Slough Intermodal Expansion Bridge	168,000	386,400	386,400	940,800
Pennsylvania	5	Upgrade US 30 from OH border to Pittsburgh International Airport	256,000	588,800	588,800	1,433,600
	6	Philadelphia: Reconstruct Old Delaware Avenue Service Road	192,000	441,600	441,600	1,075,200
	19	Allegheny Co.: Expansion of M.L. King Busway to serve Pittsburgh Airport & community	1,736,000	3,992,800	3,992,800	9,721,600
	26	Pittsburgh: Contruct exclusive busway linking Pittsburgh to Pittsburgh Airport	784,000	1,803,200	1,803,200	4,390,400
	29	Philadelphia: Improve mobility in vicinity of Pennsylvania Convention Center	760,000	1,748,000	1,748,000	4,256,000
	39	Erie Co.: Eastside Connector Project/Port of Erie Access	600,000	1,380,000	1,380,000	3,360,000

PRIORITY INTERMODAL PROJECTS IN SECTION 1108 OF THE 1991 ISTEA

State	Section Project Number	Project Location/Name	Contract Authority			
			FY 1992	FY 1993	FY 1994	Total FY92-FY94
Texas	44	Ft. Worth: Ft. Worth Intermodal Center	1,072,000	2,465,600	2,465,600	6,003,200
	47	Williamson, Travis, Cadwell, Guadalupe: I-35 traffic congestion feasibility studies, R-O-W	416,000	956,800	956,800	2,329,600
Utah	38	Provo: South Access Road to Provo Municipal Airport	80,000	184,000	184,000	448,000
Washington	20	Pierce Co.: Feasibility study of expanding Tacoma Narrows Bridge; other alternatives	56,000	128,800	128,800	313,600
	24	Spokane: Conduct feasibility study of future tranportation needs of Southeastern WA	64,000	147,200	147,200	358,400
		Totals:	34,956,000	80,398,600	80,398,600	195,753,600

RAILROAD--HIGHWAY CROSSING DEMONSTRATION PROJECTS
Allocations, Obligations, and Estimated Costs
As of January 31, 1994
(Amounts in Thousands of Dollars)

					ESTIMATED PROJECT COST	
CITY	SOURCE	TYPE OF PROJECT	FEDERALS FUNDS ALLOCATED	FEDERALS FUNDS OBLIGATED	ALL FUNDING SOURCES	FEDERAL DEMO FUNDS ONLY
Elko, NV	73 Highway Act	Rail Relocation	$41,343	$41,343	$44,800	$41,343
Lincoln, NE	73 Highway Act	Grade Separations	$27,576	$26,658	$31,600	$26,700
Wheeling, WV	73 Highway Act	Rail Relocation	$600 (a)	$600	$600	$600
Blue Island, IL	73 Highway Act	Grade Separations	$0 (a)	$0	$0	$0
Carbondale, IL	73 Highway Act	Rail Relocation	$26,520	$21,505	$28,600	$27,200
Dolton, IL	73 Highway Act	Grade Separations	$0 (a)	$0	$0	$0
E. St. Louis, IL	73 Highway Act	Grade Separations	$8,661	$6,152	$28,700	$27,300
Springfield, IL	73 Highway Act	Rail Relocation	$30,319	$30,319	$39,200	$30,300
New Albany, IN	73 Highway Act	Rail Relocation	$2,326	$2,326	$2,595	$2,326
Anoka, MN	73 Highway Act	Grade Separations	$2,898	$2,898	$3,050	$2,898
Brownsville, TX Matamoros, Mexico	73 Highway Act	Rail Relocation	$21,904	$11,422	$36,000	$34,000
Greenville, TX	73 Highway Act	Grade Separations	$9,500	$9,465	$14,800	$9,486
Lafayette, IN	74 Highway Amends.	Rail Relocation	$40,657	$31,727	$112,500	$95,700
Hammond, IN	74 Mass Trans. Act	Rail Relocation	$14,370	$11,129	$18,600	$14,400
Matairie, LA	76 Highway Act	Grade Separations	$1,702	$1,702	$4,300	$1,702
Augusta, GA	76 Highway Act	Rail Relocation	$18,049	$11,686	$121,400	$94,200
Pine Bluff, AR	76 Highway Act	Consol./Gr.Sep.	$14,527	$14,460	$15,800	$14,500
Sherman, TX	76 Highway Act	Grade Separations	$0 (b)	$0	$0	$0
Terre Haute, IN	77 Approps. Act	Grade Separations	$6,000	$5,513	$5,800	$5,500
		TOTALS	$266,952	$228,905	$508,345	$428,155

(a) Demonstration aspects ineligible since project failed to meet the legislated deadline. The West Virginia allocation was made available, in accordance with congressional advice. for Federal-aid system improvements. The Blue Island and Dolton, Illinois, projects have been withdrawn.

(b) Withdrew from the demonstration program--project is being advanced with regular Federal-aid highway funds.

STRIPING AND PAVEMENT MARKINGS

Mr. CARR. The March 1993 issue of Public Roads contains an article written by Dr. Ted R. Miller dealing with the benefits and costs of marking lanes. Dr. Miller concludes that "on the average, each $1 currently spent on pavement striping yields $60 in benefits. The benefit-cost ratio rises with traffic volume. The urban ratio is double the rural ratio." Since the article was based on a study funded by the American Glass Bead Manufacturers Association, there might (be) some bias built into the analysis.

What is the position of the Federal Highway Administration regarding the value of striping?

[The information follows:]

Striping or pavement marking is considered the backbone of driver communication. Research on driver information processing indicates that tracking the roadway lane is the primary task related to driving. The 1993 Annual Report on Highway Safety Improvement Programs showed, based on evaluations conducted by the States on safety improvement projects, pavement marking projects had a 2.7 benefit-cost ratio.

STRIPING

Mr. CARR. Has the FHWA conducted or funded research to determine the costs and benefits of striping?

[The information follows:]

The FHWA has neither conducted nor funded any research related to determining the costs and benefits of striping.

Mr. CARR. What guidance has the FHWA given to the States regarding the value of striping?

[The information follows:]

Because of the importance of pavement marking, the FHWA has conducted considerable research, training and technology transfer activities. The FHWA has also promulgated standards and issued guidance for the installation of pavement markings. FHWA is currently implementing the All Weather Pavement Marking program in accordance with Section 6005 of ISTEA in order to provide guidance on better marking under all weather conditions. In addition, the FHWA is conducting field evaluations of various level of pavement marking retroreflective in order to develop minimum levels as required by Congress.

Mr. CARR. Do you think the States are doing enough in the way of striping? Should it be given a higher priority?

[The information follows:]

In setting priorities, States need to know the most cost beneficial pavement marking material and time to restripe each of their streets and highways. The FHWA, in cooperation with State and local agencies, is developing guidance to aid highway agencies in deciding the type of material and when to restripe. Thus guidance will include acceptable levels of pavement marking retroreflectivity and equipment to measure the level of retroreflectivity.

LOMA PRIETA EARTHQUAKE

Mr. CARR. According to articles published in the San Francisco Examiner, at least $2.8 billion of the $5 billion provided by state and federal governments to help rebuild after the Loma Prieta earthquake remains unspent.

Please respond to each of the following points raised by the Examiner:

- Caltrans missed deadlines for strengthening more than 70 percent of the 1,300 bridges and overpasses in California needing improvement.

- Construction has begun on only 96 of 1,000 multi-column bridges, despite a 1990 law that requires all 1,000 to be retrofitted by the end of 1994.
- Caltrans has not yet completed a detailed plan for strengthening the span of the Bay Bridge that collapsed during the earthquake.
- Only one-third of the $1.7 billion in state and federal emergency funding allocated to repair Bay area highways has been spent.

[The information follows:]

The total number of bridges in the Caltrans retrofit program is dynamic in nature. As the screening progressed, more bridges were added to the list. For example, the Category I list (those most in need of retrofitting) grew by thirty-nine percent during the screening process. Some of the retrofitting procedures were dependent on the results of ongoing research which delays design and project letting until research is complete. The Caltrans Seismic Advisory Board did not develop the final seismic design criteria until May 1992. This left Caltrans only 18 months to analyze, design and award all contracts for the work. The design and analysis work was more complex and took longer than originally contemplated. Delays also occurred when Caltrans became embroiled in legal difficulties with their Professional Engineers in Government organization over the extent to which engineering contracts could be awarded outside of Caltrans.

The work on multi-column bridge retrofitting has been delayed for the same reasons noted above for the entire retrofit program. Additionally, the multiple column retrofitting program is highly dependent on the results of ongoing research. Multiple column bent retrofitting also usually requires complex dynamic analysis which significantly lengthens the design process.

Caltrans contracted with the University of California at Berkeley several years ago to analyze the Bay Bridge. This research work is now nearing completion. The retrofit strategies have been defined and the work has been broken down into 8 projects, with PS&E completion dates ranging from June 1994 to April 1996. Tentative preliminary cost estimates for the work are in the range of $200 million.

To date, the State has been allocated $1.315 billion from FHWA's emergency relief (ER) program for repair of Federal-aid highway facilities damaged by the Loma Prieta earthquake. As of March 15, $861 million had been obligated, and the remainder will be obligated over the next few months as the another five construction contracts for the reconstruction of the Cypress Freeway are advanced. Replacement of the Embarcadero Freeway and Terminal Separation Structure have been delayed because of the City of San Francisco's desire to pursue alternative transportation facilities. A portion of these alternative transportation facilities will be eligible for ER funding and there will likely be an additional allocation of ER funds to the State when the alternative facilities are advanced.

EMERGENCY RELIEF PROGRAM

Mr. CARR. In response to a major disaster like Loma Prieta earthquake, does FHWA plan a major role or merely dole the money out to state authorities?

[The information follows:]

The FHWA emergency relief program provides a special source of Federal funds for repair of damaged Federal-aid highways. Although States are empowered to immediately begin repairs to restore essential traffic service, normal Federal-aid procedures are applicable to permanent repairs. FHWA assists the States and locals and other Federal agencies in assessing the damage and in estimating costs of repairs. FHWA also provides technical assistance in the review, design, repair and reconstruction of damaged facilities.

LOMA PRIETA AND NORTHRIDGE EARTHQUAKES

Mr. CARR. Based on the experience in the Loma Prieta earthquake, is the FHWA proceeding differently in its reaction to Northridge earthquake of January 1994?

[The information follows:]

Since the FHWA's emergency relief (ER) program has not substantially changed over the years, the FHWA reacted similarly to both earthquakes. The goals are to provide ER funding immediately, to assist the State in damage assessments, and to provide technical assistance to assure needed interim traffic services are put in place and damaged facilities are rapidly repaired. In addition, in both instances FHWA supported legislative initiatives to secure additional ER funding through special Federal legislation.

Both earthquakes caused considerable damage to Federal-aid highway structures. However, the strategy and approach in implementing the repair projects has differed. In the case of Loma Prieta earthquake, the double-deck Cypress Freeway was completely destroyed, and it was decided to reconstruct the facility on a different location. Also, local public officials advocated that certain damaged double-deck freeway segments in downtown San Francisco not be repaired but instead replaced with alternative transportation facilities. On the other hand, with the Northridge earthquake there has been immediate support from public officials to repair the damaged structures in place. Because of the experience gained from the Loma Prieta earthquake, the structure repairs associated with the Northridge earthquake can incorporate state-of-the-art seismic retrofit design.

CYPRESS FREEWAY CONSTRUCTION

Mr. CARR. Provide the status of the work on the Cypress freeway. In your opinion, why has it taken so long for this project to proceed to construction?

[The information follows:]

Two of the seven segments for the construction of the Cypress Freeway are under contract. The remaining five segments will be let for bidding between now and July 1994. It was decided to reconstruct the freeway in a new location. Relocating a major freeway link in an urban area takes considerable time to implement because of the environmental impact study and other local, State and Federal requirements. Considering the complexities involved, the State has made an outstanding effort to promptly advance this project.

Mr. CARR. The emergency supplemental bill passed earlier this year in response to the Northbridge earthquake included $315,000,000 for the Cypress Freeway. How confident are you that this amount will be sufficient and that there will be no need for additional federal funding for the project?

[The information follows:]

The bids received on the five remaining Cypress Freeway construction contracts will determine whether the $315 million will be sufficient to cover costs. If additional emergency relief (ER) funding is needed for the Cypress Freeway, it is planned to provide these funds from the regular ER program.

SEISMIC STANDARDS

Mr. CARR. What is the potential Federal financial exposure for the upgrades required to bring the Golden Gate Bridge and Bay Bridge into compliance with current seismic standards?

Would such funding come from the emergency relief element of the highway program?

[The information follows:]

Based on the State's current estimate, the total cost of seismic retrofit to current standards is approximately $150 million for the Golden Gate Bridge and $200 million for the Bay Bridge. Seismic retrofitting of these bridges is not eligible under the emergency relief program. The State does have the option of using other regular Federal-aid highway funding sources for this work.

CLOSING REMARKS

Mr. CARR. With that, the Committee will be adjourned.

[The justifications follow:]

U.S. Department of
Transportation

BUDGET ESTIMATES
FISCAL YEAR 1995

FEDERAL HIGHWAY ADMINISTRATION

SUBMITTED FOR USE OF
THE COMMITTEES ON APPROPRIATIONS

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FISCAL YEAR 1995 CONGRESSIONAL SUBMISSION

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DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

GENERAL STATEMENT

FY 1995 Budget Overview

The President's Budget for FY 1995 fully supports implementation of the Intermodal Surface Transportation Efficiency Act (ISTEA) for major highway programs; is consistent with the President's stated policy to support program levels equal to those authorized by ISTEA and will help to further the States' ability to use the flexibilities provided by ISTEA. It constitutes a strategic use of resources to promote a safe, effective, and efficient surface transportation system.

The following narrative provides an overview of the FY 1995 budget, including highlights of both personnel resources and proposed funding levels for major appropriation accounts. References to the FY 1994 budget and FY 1995 request include the estimated effects of the supplemental appropriation requests and the proposed rescission of obligational authority associated with certain "demonstration" projects, consistent with the Budget Appendix. However, rescission proposals have not been transmitted to the Congress and there are other options for achieving the savings.

Financial Resources

In total, our FY 1995 budget proposes an overall program level (obligations) of $20.309 billion compared to obligation levels of $20.357 billion and $18.015 billion for fiscal years 1994 and 1993 respectively.

The budget authority included in our FY 1995 request totals $20.866 billion, compared to the FY 1994 and FY 1993 budget authority levels of $21.305 billion and $21.223 billion respectively.

Outlays for FY 1995 are estimated at $18.989 billion. Estimated outlays for FY 1994 and actual outlays for FY 1993 are $18.232 billion and $16.656 billion respectively.

Personnel Resources

Our FY 1995 budget request reflects implementation of mandated staffing reductions contained in the President's Executive Order 12839, "Reduction of 100,000 Federal Positions."

We are requesting a total of 3,849 full–time equivalent workyears (FTE's) in FY 1995, a reduction of 60 below the 3,909 approved for FY 1994.

Federal–aid Highways

We propose an FY 1995 obligation limitation of $19.969 billion (based on the ISTEA authorized level for FY 1995 of $18.332 billion plus estimated obligaitons of $1.637 billion for programs previously exempt from the limitation.) In addition, $100 million is exempt for Emergency Relief, yielding total obligations of $20.069 billion. The proposed FY 1995 obligations are $414 million (2 percent) higher than the FY 1994 level, excluding emergency supplemental funding.

Motor Carrier Safety Grants

We propose an obligation limitation of $83 million, equal to the FY 1995 ISTEA authorized amount. The FY 1995 proposed level is $18 million or 28 percent higher than the FY 1994 level.

Highway Related Safety Grants

We propose an obligation limitation of $10 million, equal to the enacted FY 1994 limitation.

General Operating Expenses

A limitation of $598.5 million is proposed for FY 1995, an increase of $129.7 million (28 percent) above the FY 1994 level of $468.8 million. The increase reflects growth in IVHS ($75.5 million), mandatory cost increases, other Research and Development activities, on–the–job training services, continuing renovations of research laboratories and international activities.

Assumed Savings

The budget assumes FY 1995 outlay savings of $406 million ($314 million in Federal–aid Highways and $92 million in miscellaneous accounts) associated with rescissions based on recommendations of the National Performance Review. However, at the same time, the Administration recognizes that other options are available to achieve these savings. One option, transmitted as an FY 1994 supplemental, would require the Secretary to reduce or delay obligations of highway construction projects in FY 1994 sufficient to reduce FY 1995 outlays by $406 million. It is the Administration's intent to work with the Congress to accomplish the means to achieve the necessary savings.

We also propose to rescind $20 million in unobligated balances of contract authority that are unavailable for obligation because of obligation limitations.

FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF REQUIREMENTS
(dollars in thousands)

Account	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate
FEDERAL-AID HIGHWAYS			
Combined			
Budget Authority (Contract Authority)	20,769,913	21,219,082	20,775,598
Obligations	17,548,164	20,000,571	20,069,078
Obligation Limitation	15,506,790	17,590,000	19,969,078
Limitation on General Operating Expenses (Non-add)	(398,000)	(468,856)	(598,545)
Outlays	16,259,209	17,825,295	18,629,492
Liquidating Cash Appropriation	19,000,000	18,000,000	17,000,000
Positions	245	245	245
Full-time Equivalent Workyears	301	276	271
Regular Schedule			
Budget Authority (Contract Authority)	20,769,913	20,904,082	20,775,598
Obligations	17,548,164	20,102,251	20,625,460
Obligation Limitation	15,506,790	17,590,000	19,969,078
Limitation on General Operating Expenses (Non-add)	(398,000)	(468,856)	(598,545)
Outlays	16,259,209	17,810,858	18,773,095
Liquidating Cash Appropriation	19,000,000	18,000,000	17,000,000
Supplemental Request			
Budget Authority (Appropriation)	...	315,000	...
Obligations	...	296,626	...
Outlays	...	34,077	170,842
Assumed Savings *			
Budget Authority (Contract Authority)	...	0	0
Obligations	...	(398,306)	(556,382)
Outlays	...	(19,640)	(314,445)
LIMITATION ON GENERAL OPERATING EXPENSES			
Limitation	(398,000)	(468,856)	(598,545)
Positions	3,372	3,372	3,372
Full-time Equivalent Workyears	3,469	3,399	3,347

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF REQUIREMENTS
(dollars in thousands)

Account	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate
MOTOR CARRIER SAFETY GRANTS			
Budget Authority (Contract Authority)	76,000	80,000	83,000
Obligations	64,990	65,000	83,000
Obligation Limitation	65,000	65,000	83,000
Outlays	62,966	65,689	73,446
Liquidating Cash Appropriation	65,000	68,000	73,000
HIGHWAY–RELATED SAFETY GRANTS			
Combined			
Budget Authority (Contract Authority)	20,000	20,000	0
Obligations	10,000	10,000	10,000
Obligation Limitation	10,000	10,000	10,000
Outlays	10,978	9,187	9,593
Liquidating Cash Appropriation	10,000	10,000	10,000
Regular Schedule			
Budget Authority (Contract Authority)	20,000	20,000	20,000
Obligations	10,000	10,000	10,000
Obligation Limitation	10,000	10,000	10,000
Outlays	10,978	9,187	9,593
Liquidating Cash Appropriation	10,000	10,000	10,000
Proposed Rescission			
Budget Authority (Contract Authority)	0	0	(20,000)
Obligations	0	0	0
Obligation Limitation	0	0	0
Outlays	0	0	0
Liquidating Cash Appropriation	0	0	0
RIGHT–OF–WAY REVOLVING FUND			
Budget Authority (Contract Authority)	0	0	0
Obligations	10,152	0	0
Loan Limitation	42,500	42,500	42,500
Outlays	9,195	0	0
Liquidating Cash Appropriation	0	0	0

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF REQUIREMENTS
(dollars in thousands)

Account	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate
MISCELLANEOUS HIGHWAY TRUST FUNDS			
Combined			
Budget Authority (Appropriation)	325,015	(34,348)	0
Obligations	127,161	96,256	72,553
Outlays	75,398	98,394	97,155
Regular Schedule			
Budget Authority (Appropriation)	325,015	7,800	0
Obligations	127,161	133,945	126,145
Outlays	75,398	105,932	119,934
Assumed Savings *			
Budget Authority (Appropriation)	0	(42,148)	0
Obligations	0	(37,689)	(53,592)
Outlays	0	(7,538)	(22,779)
ORANGE COUNTY TOLL RD. (PROGRAM ACCT.)			
Budget Authority (Appropriation)	9,600	0	0
Obligations	9,600	0	0
Outlays	0	0	0
MISCELLANEOUS APPROPRIATIONS			
Combined			
Budget Authority (Appropriation)	16,861	12,472	0
Obligations	240,981	150,770	67,256
Outlays	232,851	200,512	167,795
Regular Schedule			
Budget Authority (Appropriation)	16,861	145,502	0
Obligations	240,981	308,660	160,098
Outlays	232,851	232,090	236,888
Assumed Savings *			
Budget Authority (Appropriation)	0	(133,030)	0
Obligations	0	(157,890)	(92,842)
Outlays	0	(31,578)	(69,093)
MISCELLANEOUS TRUST FUNDS			
Budget Authority	5,886	7,500	7,500
Obligations	3,565	34,144	7,500
Outlays	5,702	32,652	11,606
Positions	15	15	15
Full-time Equivalent Workyears	0	14	14

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF REQUIREMENTS
(dollars in thousands)

Account	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate
REIMBURSEMENTS AND ALLOCATIONS			
Positions	193	193	193
Full-time Equivalent Workyears	228	220	217
GRAND TOTAL - FHWA			
FINANCIAL RESOURCES			
Budget Authority	21,223,275	21,304,706	20,866,098
Obligations	18,014,613	20,356,741	20,309,387
Obligation Limitations	15,581,790	17,665,000	20,062,078
Outlays	16,656,299	18,231,729	18,989,087
Liquidating Cash Appropriations	19,075,000	18,078,000	17,083,000
PERSONNEL RESOURCES			
POSITIONS:			
Direct	3,632	3,632	3,632
Financed from transfer and reimbursable accounts	193	193	193
Total Positions	3,825	3,825	3,825
FULL-TIME EQUIVALENTS:			
Direct	3,770	3,689	3,632
Financed from transfer and reimbursable accounts	228	220	217
Total Full-time equivalents	3,998	3,909	3,849

* The budget assumes total FY 1995 savings of $703 million in obligations and $406 million in outlays if highway demonstration projects were rescinded. However, rescission proposals have not been transmitted and there are other approaches to generate these savings.

NOTE: THE BUDGET AUTHORITY SAVINGS ATTRIBUTED TO RESCISSION PROPOSALS CONTAINED IN THE DETAILED JUSTIFICATIONS FOR THE FEDERAL-AID HIGHWAYS, MISCELLANEOUS HIGHWAY TRUST FUND AND MISCELLANEOUS APPROPRIATION ACCOUNTS REFLECT AMOUNTS PRINTED IN THE FY 1995 BUDGET APPENDIX. HOWEVER, SINCE RESCISSION PROPOSALS WILL NOT BE TRANSMITTED TO THE CONGRESS, THE OFFICIAL BUDGET AUTHORITY AMOUNTS ARE REFLECTED IN THE ABOVE SUMMARY TABLES. BUDGET AUTHORITY SAVINGS ATTRIBUTED TO RESCISSIONS SHOWN IN THE INDIVIDUAL ACCOUNT JUSTIFICATIONS SHOULD BE DISREGARDED.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
(LIMITATION ON OBLIGATIONS)
(HIGHWAY TRUST FUND)

None of the funds in this Act shall be available for the implementation or execution of programs the obligations for which are in excess of [$17,590,000,000] *$19,969,078,000* for Federal-aid highways and highway safety construction programs for fiscal year [1994] *1995*.

[(RESCISSION)]
[(HIGHWAY TRUST FUND)]

[Of the funds made available for the functional replacement of publicly-owned facilities located within the proposed right-of-way of Interstate Route 170 in Public Law 96-131, $200,000 are rescinded.]

[(RESCISSION)]
[(HIGHWAY TRUST FUND)]

[Of the funds made available under this heading in Public Law 100-71, $364,180 are rescinded.]

[(RESCISSION)]

[Of the authority made available for the intersection safety demonstration project in Public Law 100-457 and Public Law 101-516, $3,059,960 are rescinded.]

(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

For carrying out the provisions of title 23, United States Code, that are attributable to Federal-aid highways, including the National Scenic and Recreational Highway as authorized by 23 U.S.C. 148, not otherwise provided, including reimbursements for sums expended pursuant to the provisions of 23 U.S.C. 308, [$18,000,000,000] *$17,000,000,000* or so much thereof as may be available in and derived from the Highway Trust Fund, to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

FY 1995 SUPPLEMENTAL PROPOSAL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
(HIGHWAY TRUST FUND)

For an additional amount for emergency expenses resulting from the Loma Prieta earthquake of October 17, 1989, as authorized by 23 U.S.C. 125, $315,000,000, to be derived from the Highway Trust Fund and to remain available until expended; Provided, That such amount is designated by Congress as an emergency requirement pursuant to section 251(b)(2)(D)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended.

FY 1995 RESCISSION PROPOSAL

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
(HIGHWAY TRUST FUND)

Of the funds authorized by sections 1103 through 1108 of Public Law 102-240 for highway projects, and which have not been obligated for construction, $4,172,168,000 in unobligated balances and contract authority becoming available in fiscal years 1995 through 1997 are rescinded: Provided further, That the term "construction" refers to a project or segment of a project for which a construction contract for physical construction has been awarded by the State, local government, or other contracting authority having responsibility for the project, regardless of whether other obligations, such as those for preliminary engineering or environmental studies, have been incurred.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS

Background

The Federal-aid Highways (FAH) budget authority consists of several programs designed to aid in the construction, rehabilitation, traffic management, and safety of our Nation's highways as well as other forms of surface transportation at the discretion of the States. This account is funded by contract authority found in substantive legislation currently provided by the six-year (1992-1997) Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102-240, ISTEA).

All programs included within FAH are financed from the Highway Trust Fund and distributed via apportionments and allocations to the States. Liquidating cash appropriations are subsequently requested to fund outlays resulting from obligations incurred under contract authority.

FY 1995 Program

The FAH program for FY 1995 was set forth in the ISTEA. During the year FHWA will continue to carry out the mandates of this law with special emphasis on intermodalism, safety, the environment, technology advancement and strengthening the role of transportation in economic growth. Key to successful achievement of these goals is the amount of funding provided. This is particularly true for economic growth and productivity, which are strongly linked to infrastructure investment.

Full Funding of the ISTEA Limitation

The most important aspect of our FY 1995 budget request is full funding of the ISTEA-authorized obligation limitation for FAH "core" programs. This level of program funding ($18.332 billion) supports the Administration's commitment to infrastructure investment and will permit the States to address priority needs ranging from interstate construction to congestion mitigation and air quality improvement. Full funding also will allow the States to take maximum advantage of the flexibility provisions contained in the ISTEA, whereby funds can be transferred between highway and transit projects at State discretion.

Program Level vs. Needs and the Economy

The investment in transportation infrastructure supported by the ISTEA is critical to the economic health of the Nation. Inadequate levels of public infrastructure investment impose direct costs on businesses that diminish U.S. competitiveness in international markets and raise domestic consumption costs. In addition, lower levels of investment could adversely affect growth in private sector capital and labor productivity rates necessary for healthy long-run economic performance. Because of the pervasive reliance on the Nation's highway system to meet business logistics, marketing and distributional needs, virtually every sector of the National economy is affected by the level of investment in highway infrastructure.

The level of capital investment in highways and bridges needed to support the economic strength of the Nation is estimated by FHWA based on the costs associated with meeting different levels of performance regarding pavement condition and level of service. The total annual investment required to achieve two different levels of performance is reported to the Congress biannually in The Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance. One level of performance presented in the report is the cost of achieving minimum condition standards, generally referred to as the "Cost to Improve" scenario. The other level of performance is the cost of maintaining performance at its current level, referred to as the "Cost to Maintain" scenario.

Based on the estimates in the latest Conditions and Performance Report (which contains 1991 estimates for the two scenarios described above for all roads and bridges in the United States), the "Cost to Maintain" scenario investment requirements for **Federal-aid roads and bridges only** are much greater than currently available funding from all sources (State, local and Federal). Even under full funding of the ISTEA limitation in FY 1995, there would be an estimated $11.9 billion shortfall of funds from all sources in FY 1995 to maintain the condition and performance of these roads and bridges at their projected 1995 level. The 1995 level of condition and performance is projected to be lower than the 1991 level because of continuing under-investment in the intervening years. In order to minimize the effects of continuing under-investment in the highway infrastructure, the highest level of Federal investment provided by the ISTEA is needed.

Based on FHWA forecasts of State and local spending patterns, full funding in FY 1995 combined with State and local matching funds and State own-source investment will fund:

(1) Approximately 80 percent of the investment required in 1995 to maintain the highway and bridge infrastructure on the 155,000-mile NHS at its projected 1995 level of performance, and

(2) Approximately 66 percent of the investment required in 1995 to maintain highway and bridge infrastructure on other

eligible roadways at their projected 1995 level of performance.

In addition to providing funds to invest in the highway physical infrastructure, the ISTEA also provided funding for projects whose objective is to meet broader mobility goals, such as transportation demand management strategies, projects designed to make better use of the existing infrastructure, safety projects, and projects involving alternative transportation options (including transit, bicycles, and walking), as well as for research into the technology needed to make some of these options a reality (e.g., IVHS). Some funding was also provided to mitigate the impact of transportation improvements on the environment. An estimated $3.4 billion of Federal funding apportioned to the States and $114 million for IVHS is expected to be spent on these kinds of projects in 1995. However, without full funding it is likely that these projects would not receive the emphasis intended by the ISTEA since the measures that directly meet infrastructure investment requirements would probably rank higher in priority.

Full funding, in addition to providing much-needed transportation improvements, would positively affect employment levels. It would pump needed money into the economy and facilitate job expansion in both the private and public sectors, since highway construction activities are relatively labor intensive compared to the rest of the economy.

The new planning procedures instituted by the ISTEA require the transportation improvement programs that emerge from the Statewide and Metropolitan planning process to be financially realistic. Amounts authorized by the ISTEA are the funding levels expected for the FAH program. If these full funding levels cannot be counted on, the State and local decision makers will find it difficult to carry out the planning process as envisioned by the ISTEA. This could be a blow to better transportation decision making.

A Single Comprehensive Obligation Limitation

As part of our FY 1995 budget request, we also propose to include the Minimum Allocation program, Public Law 102-240 demonstration projects, and other currently exempt programs (except for Emergency Relief) within the FAH obligation limitation for FY 1995 and in the future. The ISTEA-authorized obligation limitation for "core" programs would be increased by the amount of estimated obligations for these other programs to derive the new overall limitation. For FY 1995, the new overall limitation would equal $19.969 billion--$18.332 billion for the base limitation plus $1.187 billion for Minimum Allocation, $180 million for the Bonus Limitation, $24 million for the Applied

Research and Technology program, and $246 million for demonstration projects and other currently exempt programs.

Obligations for these categories should be limited, along with obligations for the FAH "core" programs, so that the States have maximum flexibility to advance projects ready to be undertaken. Also, exempt spending often is less efficient than spending subject to the limitation, which goes to all States based on formula apportionments. Exempting Minimum Allocation and demonstration project funds from the obligation limitation creates spending and flexibility inequities among the States.

Supplemental Proposal

Our FY 1995 budget requests an emergency supplemental appropriation of $315 million to allow emergency repair and replacement work to continue on highways damaged or destroyed during the Loma Prieta earthquake of October 17, 1989.

In response to the Loma Prieta earthquake and Hurricane Hugo, Public Law 101-130 provided $1 billion in Federal Disaster Assistance to aid States in rebuilding highways and other facilities damaged as a result of these 1989 disasters. Even though the entire $1 billion was allocated to California for earthquake assistance (Hurricane Hugo assistance was provided through regular Emergency Relief funds), a significant shortfall in Emergency Relief funds for the Loma Prieta earthquake expenses is projected. The additional requested funding is needed to complete Federal-aid highway repair work resulting from the earthquake, almost all of which will be obligated in FY 1994 for work on the Cypress Freeway replacement project.

This request is consistent with the practice of restoring highway facilities damaged in disasters. The entire amount requested is designated by the President as an emergency requirement pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985, as amended.

The supplemental proposal includes a provision that would amend the Department of Transportation and Related Agencies Appropriations Act, 1994, by making section 6005 of Public Law 102-240 (relating to the applied research and technology program) subject to the 1994 obligation limitation. This proposal would permit consistent treatment of all highway research activities.

Assumed Savings

The budget assumes FY 1995 outlay savings of $406 million ($314 million in Federal-aid Highways and $92 million in miscellaneous accounts) associated with rescissions based on recommendations of the National Performance Review. However, at the same time, the Administration recognizes that other options are available to achieve these savings. One option, transmitted as an FY 1994 supplemental, would require the Secretary to reduce or delay obligations of highway construction projects in FY 1994 sufficient to reduce FY 1995 outlays by $406 million. It is the Administration's intent to work with the Congress to accomplish the means to achieve the necessary savings.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
FY 1996 BUDGET
(In thousands of dollars)

PROGRAM	FY 1994 Budget Authority Regular	FY 1994 Budget Authority Supplemental & Rescinded	FY 1994 Budget Authority Total	FY 1994 Obligations Regular	FY 1994 Obligations Supplemental & Rescinded	FY 1994 Obligations Total	FY 1995 Budget Authority Regular	FY 1995 Budget Authority Supplemental & Rescinded	FY 1995 Budget Authority Total	FY 1995 Obligations Regular	FY 1995 Obligations Supplemental & Rescinded	FY 1995 Obligations Total
SUBJECT TO LIMITATION:												
National Highway System	3,473,035		3,473,035	3,291,818		3,291,818	3,473,035		3,473,035	3,566,766		3,566,766
Surface Trans. Prog. /1	4,749,038		4,749,038	4,451,605		4,451,605	4,795,440		4,795,440	4,898,378		4,898,378
Bridge Program	2,665,330		2,665,330	2,439,270		2,439,270	2,665,330		2,665,330	2,643,139		2,643,139
Interstate Completion /2	1,792,000		1,792,000	1,640,012		1,640,012	1,717,000		1,717,000	1,702,704		1,702,704
Interstate Maintenance	2,812,010		2,812,010	2,573,610		2,573,610	2,812,010		2,812,010	2,766,597		2,766,597
Interstate Substitutions	231,600		231,600	211,957		211,957	231,600		231,600	229,672		229,672
Congestion Mitigation and Air Quality Improvement	992,020		992,020	689,176		689,176	992,020		992,020	716,248		716,248
Donor State Bonus	496,010		496,010	453,941		453,941	496,010		496,010	491,880		491,880
Intel. Veh. Hwy. Sys.	113,000		113,000	181,527		181,527	113,000		113,000	114,700		114,700
Federal Lands	429,425		429,425	448,000		448,000	429,425		429,425	441,014		441,014
Administration & Res.	567,930		567,930	662,926		662,926	567,930		567,930	673,661		673,661
Miscellaneous Programs	63,250	(564)	62,686	546,256		546,256	63,250		63,250	63,251		63,251
Minimum Allocation	Exempt from Limitation			Exempt from Limitation			1,150,000		1,150,000	1,186,555		1,186,555
P.L. 102-240 Demos							1,108,548	(816,966)	291,582	736,846	(556,382)	180,464
Other Exempt Programs							20,000		20,000	65,602		65,602
Applied Res. & Tech.							41,000		41,000	24,257		24,257
Bonus Obligation Lim.							...		...	160,000		160,000
SUBTOTAL, LIMITATION	18,384,646	(564)	18,384,082	17,590,000	0	17,590,000	20,675,598	(816,966)	19,858,632	20,525,460	(556,382)	19,969,078
EXEMPT FROM LIMITATION:												
Emergency Relief:	55,000	315,000	370,000	364,962	315,000	679,962	100,000	0	100,000	100,000	0	100,000
Emergency Rel. (Reg.) /2	25,000		25,000	144,994		144,994	100,000		100,000	100,000		100,000
Emergency Rel. (Other)	30,000	315,000	345,000	219,968	315,000	534,968	...		...	...		...
Minimum Allocation	1,234,619		1,234,619	1,260,771		1,260,771	Part of Limitation			Part of Limitation		
P.L. 102-240 Demos	1,169,381	(1,721,270)	(551,889)	606,248	(398,306)	207,942						
Other Exempt Programs /2	20,000		20,000	81,696		81,696						
Applied Res. & Tech.	41,000		41,000	16,374	(16,374)	...						
Bonus Obligation Lim.	...		...	160,000		160,000						
SUBTOTAL, EXEMPT	2,520,000	(1,406,270)	1,113,730	2,512,261	(101,690)	2,410,571	100,000	0	100,000	100,000	0	100,000
GRAND TOTAL, FAH	20,904,646	(1,406,834)	19,497,812	20,102,261	(101,690)	20,000,571	20,775,598	(816,966)	19,958,632	20,625,460	(556,382)	20,069,078

/1 Amounts for the Hold Harmless equity program are included within amounts for the Surface Transportation Program.

/2 In FY 1994, $75 million will be reimbursed from Emergency Relief to Interstate Completion (previously borrowed in FY 1993). In FY 1994-1995, $20 million will be allocated from Interstate Completion to fund National Defense Highways Outside the U.S. (under "Other Exempt Programs") per section 1006(h) of P.L. 102-240.

FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS PROGRAM, FY 1995

(in thousands of dollars)

National Highway System	FY 1994	FY 1995
Contract Authority	$3,473,035	$3,473,035
Obligation Level	3,291,818	3,566,766

Background

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 authorizes the development of a proposed National Highway System (NHS) consisting of 155,000 miles (plus or minus 15%) of major roads in the United States. The proposed NHS will include all Interstate routes, a large percentage of urban and rural principal arterials, the defense strategic highway network, and major strategic highway connectors. The proposed system, which will be developed in consultation with the States, must be designated by law by September 30, 1995. In the interim, NHS funds may be used on highways classified as principal arterials. The NHS funding level is $20.3 billion for the 6 years authorized by the ISTEA (net of the estimated administrative takedown). A State may choose to transfer up to 50 percent of the NHS funds to the new STP program. If the Secretary approves, 100 percent may be transferred. The Federal share for the NHS is 80 percent, except for the Interstate portion where it is generally 90 percent, with an availability period of 4 years.

Surface Transportation Program and Hold Harmless Program	FY 1994	FY 1995
Contract Authority	$4,749,036	$4,795,440
Obligation Level	4,451,605	4,898,378

Background

The ISTEA of 1991 established a new Surface Transportation Program (STP). The STP is a flexible program that may be used by the States and localities for any roads (including NHS) that are not functionally classified as local or rural minor collectors. These roads are now collectively referred to as Federal-aid highways. Bridge projects paid for with STP funds are not restricted to Federal-aid highways but may be on any public road. Transit capital projects are also eligible under this program. The total funding for the STP over the 6-year authorization period is $23.1 billion (net of the estimated administrative takedown). This level may be augmented, however, by the transfer of funds from other programs and by equity adjustments which may be used as if they were STP funds. Once distributed to the States, STP funds must be used according to the following percentages:

- 10% for safety construction
- 10% for transportation enhancement
- 50% divided among areas of over 200,000 population and remaining areas of the State
- 30% can be used in any area of the State

Also, areas of 5,000 population or less are guaranteed an amount based on previous Secondary funding. The Federal share for the STP is 80 percent and has a 4 year availability period.

Each State is to receive an amount in addition to its regular apportionments so that its total funding will reach a legislative percentage established in Section 1015(a) of the ISTEA. This additional amount is called "hold harmless." Funding for the Hold Harmless program is open-ended, but for the 6-year period of the ISTEA is estimated at $4.7 billion. The Hold Harmless funds will be used as if they are STP funds except that only one-half of the Hold Harmless funds received are subject to the set-asides and sub-State distribution requirements of the STP.

Bridge Program	FY 1994	FY 1995
Contract Authority	$2,665,330	$2,665,330
Obligation Level	2,439,270	2,643,139

Background

The Bridge Replacement and Rehabilitation Program is continued as the Bridge Program at a total authorization level of $15.6 billion (net of the estimated administrative takedown) to provide assistance for bridges on public roads. A discretionary set aside is continued for high cost bridges, although at a lower level than previously provided. The set aside ranges from $57 million to $69 million. A part of this set aside, approximately $8.5 million is to be used for timber bridge research grants, technology and information transfer, and construction grants. Bridges on Indian reservation roads are also given special attention. Besides the inventorying and inspection of these bridges, 1 percent of a State's annual bridge apportionment is to be used for eligible bridge projects. Forty percent of a State's bridge funds may be transferred to the NHS or the STP. The Federal share for the Bridge Program is 80 percent with an availability period of 4 years. The budget proposes, beginning in FY 1995, that highway bridges determined to be an obstruction to navigation be eligible for funding through the Federal-aid highways program. Currently, such bridges are funded by a separate appropriation to the U.S. Coast Guard.

Interstate Completion	FY 1994	FY 1995
Contract Authority	$1,792,000	$1,717,000
Obligation Level	1,640,012	1,702,704

Background

The ISTEA of 1991 authorizes a total of $6.97 billion through FY 1995 (net of the estimated administrative takedown) to complete the Interstate System. Currently, 23 States have completed their Interstate construction programs. Nationwide, 42,696 miles or 99.8 percent of the 42,796-mile system is open to traffic as of June 30, 1993. The States, except Massachusetts, receive yearly apportionments based on each State's proportionate share of the remaining needs in the 1991 Interstate Cost Estimate, excluding Massachusetts' cost to complete. Massachusetts receives a specified yearly allocation of Interstate construction funds that approximates its construction schedule. Interstate Construction has a Federal share generally of 90 percent.

Interstate Maintenance	FY 1994	FY 1995
Contract Authority	$2,812,010	$2,812,010
Obligation Level	2,573,510	2,788,597

Background

The ISTEA of 1991 establishes the Interstate Maintenance program, which basically replaces the I-4R program. This program finances projects to rehabilitate, restore, and resurface the Interstate System providing $16.4 billion over the life of the bill (net of the estimated administrative takedown). Reconstruction of bridges, interchanges and over crossings along existing Interstate routes is also an eligible activity if it does not add capacity other than high occupancy vehicles (HOV) and auxiliary lanes. The Federal share for this program is 90 percent. Availability is set at 4 years.

Interstate Substitutions	FY 1994	FY 1995
Contract Authority	$231,600	$231,600
Obligation Level	211,957	229,672

Background

The ISTEA of 1991 authorizes $240 million (prior to administrative takedowns) from the Highway Account of the Highway Trust Fund for highway substitute projects in fiscal years 1992, 1993, 1994, and 1995. The current formula for apportioning Interstate Substitution funds is basically the same as in the Surface Transportation and Uniform Relocation Assistance Act of

1987, i.e., based on an estimate of the cost to complete. However, all funds authorized are apportioned on the basis of the estimate which is adjusted each year. The Federal share for this program is 85 percent; the funds are available for 2 years, except the final apportionment, which is available until expended.

Congestion Mitigation and Air Quality Improvement Program	FY 1994	FY 1995
Contract Authority	$992,020	$992,020
Obligation Level	689,176	718,248

Background

The Congestion Mitigation and Air Quality Improvement Program provides $5.8 billion (net of the estimated administrative takedown) to States to improve air quality in non-attainment areas for ozone and carbon monoxide. A wide range of transportation activities are eligible, as long as DOT, after consultation with EPA, determines they are likely to help meet national ambient air quality standards. If a state has no non-attainment areas, the funds may be used as if they were STP funds. The Federal share of this program is 80 percent.

Donor State Bonus	FY 1994	FY 1995
Contract Authority	$496,010	$496,010
Obligation Level	453,941	491,880

Background

The ISTEA of 1991 authorizes payments of Donor State Bonus amounts from the Highway Trust Fund to States that receive Minimum Allocation apportionments for the fiscal year. A State's share of the Donor State Bonus funds is based on the lowest State's percentage of projected Highway Trust fund payments raised to the next lowest State and continued until the authorization is exhausted. The total amount authorized for Donor State Bonus over the 6-year ISTEA period is $2.9 billion (net of the estimated administrative takedown).

Intelligent Vehicle/Highway Systems	FY 1994	FY 1995
Contract Authority	113,000	$113,000
Obligation Level	181,527	114,700

Background

An Intelligent Vehicle Highway System (IVHS) program is established in Title VI of the ISTEA of 1991 and is authorized at approximately $660 million for the 6-year authorization period.

There are requirements for the promotion of compatible standards and protocols to promote widespread use of IVHS technologies, the establishment of evaluation guidelines for IVHS operational tests, and the establishment of an information clearinghouse. Demonstration by 1997 of a "prototype" automated highway and vehicle system is required. An IVHS Corridors program is established to provide for operational tests and implementation projects under "real world" conditions. Corridors which meet certain transportation and environmental criteria will be designated to participate in developing and implementing IVHS technologies. The Federal share is 80 percent for those programs with availability until expended. Also supported are innovative, high-risk projects (at 100% Federal share) and other activities necessary to implement the National IVHS Strategic Plan.

Federal Lands Highways	FY 1994	FY 1995
Contract Authority	$429,425	$429,425
Obligation Level	448,000	441,014

Background

The Federal Lands Highways (FLH) program authorizations, previously available through four categories, are now provided through three categories: Indian Reservation Roads, Parkways and Park Roads, and Public Lands Highways (incorporates the previous Forest Highway category). FLH funds are allocated on the basis of relative need. The Forest Highway portions of Public Lands Highways and Indian Reservation Roads authorizations are allocated by administrative formula. FLH has a Federal share of 100 percent and an availability period of 4 years.

Administration and Research	FY 1994	FY 1995
Takedown Contract Authority	$567,930	$567,930
Obligation Level	662,926	673,651

Background

Section 104 of Title 23, United States Code, authorizes the Secretary of Transportation to deduct up to 3.75 percent of certain sums authorized prior to apportionment for the administration of Federal-aid highways and for conducting highway research and development activities. These takedowns, deducted prior to apportionment of funds to the States, remain available until expended. We assume a 3.5% takedown for both FY 1994 and FY 1995. For FY 1995, $598.5 million will be transferred to and utilized under the "Limitation on General Operating Expenses." Supporting justification for use of the amount transferred is contained under that portion of the budget document.

Minimum Allocation	FY 1994	FY 1995
Contract Authority	$1,234,619	$1,150,000
Obligation Level	1,260,771	1,186,555

Background

In fiscal years 1992-1997, each State is guaranteed an amount so that its percentage of total apportionments in each fiscal year of Interstate Construction, Interstate Maintenance, Interstate Substitution, National Highway System, Bridge Program, Surface Transportation Program, Scenic Byways, and Safety Belt and Motorcycle Helmet grants and allocations from any of these programs received in the prior year must not be less than 90 percent of the State's percentage of estimated Highway Trust Fund contributions. The contributions are based upon the latest year for which data are available.

P.L. 102-240 Demos	FY 1994	FY 1995
New Contract Authority	$1,169,381	$1,108,548
Proposed Rescission	-1,721,270	- 816,966
Net Obligation Level	207,942	180,464

Background

Included are the following P.L. 102-240 Demos: Uniform Traffic Control Devices (Sec. 1061), High Cost Bridge Projects (Sec. 1103), Congestion Relief Projects (Sec. 1104), High Priority Corridors (Sec. 1105), High Priority Corridors Feasibility Studies (Sec. 1105(h)), Rural Access Projects (Sec. 1106(a)), Urban Access Projects (Sec. 1106(b)), Innovative Projects (Sec. 1107), Priority Intermodal Projects (Sec. 1108), Infrastructure Documentary (Sec. 1109), the Howard Transportation Information Center (Sec. 6023(b)(8)(B)(iii)), and the National Center for Advanced Transportation Technology (Sec. 6023(b)(10)(C)).

Bonus Limitation	FY 1994	FY 1995
Obligation Level	$180,000	$180,000

Background

The ISTEA of 1991 authorizes additional obligations to a State which obligates, after August 1 and on or before September 30 of fiscal years 1993-1997, the entire amount of obligational authority distributed to it for Federal-aid highways in that fiscal year. An eligible State may obligate for Federal-aid highways, by the end of the fiscal year, up to an additional 5 percent of the aggregate amount of funds apportioned or allocated to that State under sections 104, 144, and 103(e)(4) of Title 23, United States Code. The aggregate amount which may be obligated by all States eligible for the bonus shall not exceed 2.5 percent of the aggregate amounts apportioned or allocated to all States under the above sections of Title 23.

Miscellaneous Programs	FY 1994	FY 1995
Contract Authority	$62,686	$63,250
Obligation Level	546,258	63,250

Background

This category includes the following programs and activities: Barry University Research Center; Ferry Boat Construction (Sec. 1064); Scenic Byways Technical Assistance (Sec. 1047(a&b)); Interim Scenic Byways Program (Sec. 1047(f)); Bureau of Transportation Statistics (Sec. 6006); University Transportation Centers (Sec. 6023); University Research Institutes (Sec. 6024); Tax Evasion Project (Sec. 1040); Safety Belt/Helmet Incentive Grants (Sec. 1031); and other miscellaneous activities. Estimated FY 1994 obligations include $483 million for prior-year programs, including Consolidated Primary, Rural Secondary, Urban Systems, Planning, Hazard Elimination and Safety Projects, Interstate 4-R, and Combined Road Plan.

Emergency Relief	FY 1994	FY 1995
Contract Authority	$100,000	$100,000
Reimbursed Funds	- 75,000	0
Appropriations	345,000	0
Total Budget Authority	370,000	100,000
Net Obligation Level	679,962	100,000

Background

The Emergency Relief (ER) program provides funds for the repair and reconstruction of Federal-aid highways and Federally-owned roads which have suffered serious damage as the result of natural disasters or catastrophic failures. The ISTEA of 1991 modified previous law slightly: The territorial limitation was raised to $20 million per fiscal year; and the number of days a State or territory has to make emergency repairs in order to receive 100 percent Federal share was increased to 180 days.

Estimated FY 1994 obligations include $315 million for the requested emergency supplemental appropriation to allow work to continue on highway facilities (mostly the Cypress Freeway) damaged by the Loma Prieta earthquake. They also include obligations resulting from the following enacted emergency supplemental appropriations: P.L. 101-130, in which $1 billion was initially appropriated in FY 1990 for the 1989 Loma Prieta earthquake; P.L. 102-368, in which $30 million was appropriated in FY 1992 for Hurricanes Andrew and Iniki and Typhoon Omar; and

P.L. 103-75, in which $175 million was appropriated in FY 1993 for the Midwest floods and other disasters.

Applied Research and Technology	FY 1994	FY 1995
Contract Authority	$41,000	$41,000
Obligation Level	18,374*	24,257

Section 6005 of the ISTEA of 1991 establishes the Applied Research and Technology Program. The Secretary must expend from administrative and research funds deducted under the administrative takedown $240 million over a 6-year period, broken down as follows:

$35 million in FY 1992
$41 million each in FY 1993-1997

Technologies which may be tested under the Applied Research and Technology Program include, but are not limited to:

- Accelerated construction materials and procedures.
- Environmentally beneficial materials and procedures.
- Materials and techniques which provide enhanced serviceability and longevity under adverse climatic, environmental, and load effects.
- Technologies which increase the efficiency and productivity of vehicular travel.
- Technologies and techniques which enhance the safety and accessibility of vehicular transportation systems.
- Other activities for accelerating the testing, evaluation, and implementation of technologies which are designed to improve the durability, efficiency, environmental impact, productivity, and safety of highway, transit, and intermodal transportation systems.

* As part of the budget's supplemental proposal, FY 1994 obligations for the Applied Research and Technology Program would be subject to the Federal-aid Highways obligation limitation and consequently would not add to total obligations.

Other Exempt Programs	FY 1994	FY 1995
Contract Authority	$20,000	$20,000
Obligation Level	$81,896	$65,802

This section includes National Defense Highways Located Outside the U.S. (Sec. 1006(h) of P.L. 102-240), in addition to prior-year exempt programs with no new authority in FY 1994 or FY 1995.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS ADMINISTRATIVE TAKEDOWN ANALYSIS
(Dollars)

	AMOUNT
Takedown balance, 9/30/91	246,159,722
Add: Takedown from:	
Nat. Hwy. Prog., Surf. Trans. Prog., Interstate Cons./Main./Subs., Cong. Mit./Air Qual., Bridge Prog., Fed. Lands, Donor State Bonus ($14,838,000,000 @ 2.75%)	408,045,000
Takedown available for FY 1992	654,204,722
Less: FY 1992 programs charged to takedown:	
General Operating Expenses	(419,000,000)
Recovery of GOE annual fund obligations	16,868,532
Add back GOE lapse from FY 1992 annual funds	1,581,552
Other programs subject to limitation: Oper. Lifesaver, Cong. Pricing, Trans. Asst., SHRP Impl., Eisenhower Prog., Seismic R&D, Asphalts, Model Intermodal, Univ. Grants	(54,300,000)
Exempt program: Applied Research & Technology	(35,000,000)
Takedown balance, 9/30/92	164,354,806
Add: Takedown from:	
Nat. Hwy. Prog., Surf. Trans. Prog., Interstate Cons./Main./Subs., Cong. Mit./Air Qual., Bridge Prog., Fed. Lands, Donor State Bonus ($17,397,000,000 @ 3.00%)	521,910,000
Takedown available for FY 1993	686,264,806
Less: FY 1993 programs charged to takedown:	
General Operating Expenses	(398,000,000)
Other programs subject to limitation: Oper. Lifesaver, Cong. Pricing, Trans. Asst., SHRP Impl., Eisenhower Prog., Seismic R&D, Asphalts, Border Cross. Study, Nat. Rec. Trails, Office of Intermodalism, Infrastructure Investment Commission	(65,055,450)
Exempt program: Applied Research & Technology	(41,000,000)
Takedown balance, 9/30/93	182,209,356
Add: Takedown from:	
Nat. Hwy. Prog., Surf. Trans. Prog., Interstate Cons./Main./Subs., Cong. Mit./Air Qual., Bridge Prog., Fed. Lands, Donor State Bonus ($17,398,000,000 @ 3.5%)	608,930,000
Takedown available for FY 1994	791,139,356
Less: FY 1994 programs charged to takedown:	
General Operating Expenses	(468,856,000)
Other programs subject to limitation: Oper. Lifesaver, Cong. Pricing, Trans. Asst., SHRP Impl., Eisenhower Prog., Seismic R&D, Asphalts, Office of Intermodalism, Nat'l. Comm. on Intermodal Trans	(59,808,629)
Limitation program: Applied Research & Technology	(41,000,000)
Takedown balance, 9/30/94 (est.)	221,474,727
Add: Takedown from (est.):	
Nat. Hwy. Prog., Surf. Trans. Prog., Interstate Cons./Main./Subs., Cong. Mit./Air Qual., Bridge Prog., Fed. Lands, Donor State Bonus ($17,398,000,000 @ 3.5%)	608,930,000
Takedown available for FY 1995 (est.)	830,404,727
Less: FY 1995 programs charged to takedown (est.):	
General Operating Expenses	(598,545,000)
Other programs subject to limitation: Oper. Lifesaver, Cong. Pricing, Trans. Asst., SHRP Impl., Eisenhower Prog., Seismic R&D, Asphalts, Office of Intermodalism	(59,999,000)
Exempt program: Applied Research & Technology	(41,000,000)
Takedown balance, 9/30/95 (est.)	130,860,727

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
STATUS OF AUTHORITY
(in thousands of dollars)

	Amount
Unobligated authority, 9/30/92	7,683,574
New contract authority for FY 1993	20,669,913
Other new budget authority for FY 1993 (emergency appropriations)	100,000
Less: FY 1993 writeoffs	(8,728)
Less: FY 1993 obligations	(17,548,164)
Unobligated authority, 9/30/93	10,896,595
New contract authority for FY 1994	20,874,646
Other new budget authority for FY 1994 (est. emergency appropriations)	345,000
Less: FY 1994 rescission and proposed rescissions of authorized demos (est.)	(1,721,834)
Less: FY 1994 obligations (est.)	(20,000,571)
Unobligated authority, 9/30/94 (est.)	10,393,836
New contract authority for FY 1995 (est.)	20,775,598
Other new budget authority for FY 1995 (est. emergency appropriations)	0
Less: Proposed rescissions of authorized demos (est.)	(816,966)
Less: FY 1995 obligations (est.)	(20,069,078)
Unobligated authority, 9/30/95 (est.)	10,283,390

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
OUTLAYS AND LIQUIDATING CASH
(in thousands of dollars)

	Liquidating Cash	Other Appropriations	Total Appropriations
Unexpended appropriations balance, 9/30/92	895,291	883,915	1,779,206
FY 1993 appropriations	19,000,000	100,000	19,100,000
FY 1993 outlays	(16,142,282)	(116,927)	(16,259,209)
Unexpended appropriations balance, 9/30/93	3,753,009	866,988	4,619,997
FY 1994 appropriations (est.)	18,000,000	345,000	18,345,000
FY 1994 outlays (est.)	(17,386,298)	(438,997)	(17,825,295)
Unexpended appropriations balance, 9/30/94 (est.)	4,366,711	772,991	5,139,702
FY 1995 appropriations (est.)	17,000,000	0	17,000,000
FY 1995 outlays (est.)	(18,206,186)	(423,306)	(18,629,492)
Unexpended appropriations balance, 9/30/95 (est.)	3,160,525	349,685	3,510,210

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FEDERAL-AID HIGHWAYS
STATUS OF UNFUNDED CONTRACT AUTHORITY
(in thousands of dollars)

	Amount
Unfunded balance, 9/30/92	31,810,280
Contract Authority, FY 1993	20,669,913
Less: FY 1993 writeoffs	(8,728)
Less: FY 1993 liquidating cash appropriation	(19,000,000)
Unfunded balance, 9/30/93	33,471,465
Contract Authority, FY 1994	20,874,646
Less: FY 1994 rescission and proposed rescissions of authorized demos (est.)	(1,721,834)
Less: FY 1994 liquidating cash appropriation	(18,000,000)
Unfunded balance, 9/30/94 (est.)	34,624,277
Contract Authority, FY 1995 (est.)	20,775,598
Less: Proposed rescissions of authorized demos (est.)	(816,966)
Less: FY 1995 liquidating cash appropriation (est.)	(17,000,000)
Unfunded balance, 9/30/95 (est.)	37,582,909

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (In thousands of dollars)

Identification code: 69-8083-0-7-401 [Parent Schedule]		1993 Actual	1994 Estimate	1995 Estimate
	Program by activities:			
	Direct program:			
00.01	National highway system	3,295,086	3,291,818	3,566,766
00.02	Surface transportation program	3,947,358	4,451,605	4,898,378
00.03	Bridge program	1,704,504	2,439,270	2,643,139
00.04	Interstate completion	1,332,281	1,640,012	1,702,704
00.05	Interstate maintenance	2,176,799	2,573,510	2,788,597
00.06	Interstate substitutions	158,888	211,957	229,672
00.07	Congestion mitigation and air quality improvement	600,513	689,176	718,248
00.08	Minimum allocation	938,803	1,260,771	1,186,555
00.09	Intelligent vehicle highway systems	119,250	181,527	114,700
00.10	Emergency relief	493,966	364,962	100,000
00.11	Federal lands	426,248	448,000	441,014
00.12	Administration and research	447,376	662,926	673,651
00.13	Miscellaneous programs	1,578,849	1,432,776	1,070,156
00.14	Donor state bonus	328,243	453,941	491,880
00.91	Total direct program	17,548,164	20,102,251	20,625,460
01.01	Reimbursable program	16,872	41,000	41,000
10.00	Total obligations	17,565,036	20,143,251	20,666,460
	Financing:			
	Unobligated balance, start of year:			
21.40	Appropriation	(288,730)	(189,968)	...
21.49	Contract authority	(7,394,844)	(10,706,627)	(11,698,426)
	Unobligated balance, end of year:			
24.40	Appropriation	189,968	...	...
24.49	Contract authority	10,706,627	11,698,426	11,848,564
25.00	Unobligated balance expiring	8,728	...	...
39.00	Budget authority (gross)	20,786,785	20,945,082	20,816,598
	Budget authority:			
	Current:			
40.00	Appropriation	19,100,000	18,000,000	17,000,000
40.49	Portion applied to liquidate contract authority	(19,000,000)	(18,000,000)	(17,000,000)
43.00	Appropriation (total)	100,000	0	0
	Permanent:			
60.05	Appropriation (indefinite)	...	30,000	...
68.00	Spending authority from offsetting collections (new)	16,872	41,000	41,000
69.10	Contract authority (P.L. 102-240)	20,669,913	20,874,646	20,775,598
69.36	Contract authority rescinded	...	(564)	...
69.90	Contract authority (total)	20,669,913	20,874,082	20,775,598

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (in thousands of dollars)

Identification code: 69-8083-0-7-401 [Parent Schedule]	1993 Actual	1994 Estimate	1995 Estimate
Relation of obligations to outlays:			
71.00 Total obligations	17,565,036	20,143,251	20,666,460
Obligated balance, start of year:			
72.40 Appropriation	1,490,476	4,430,029	4,839,139
72.49 Contract authority	24,415,436	22,764,839	24,647,122
Obligated balance, end of year:			
74.40 Appropriation	(4,430,029)	(4,839,139)	(3,066,044)
74.49 Contract authority	(22,764,839)	(24,647,122)	(28,272,582)
87.00 Outlays (gross)	16,276,080	17,851,858	18,814,095
Adjustments to budget authority and outlays:			
Deductions for offsetting collections:			
88.00 Federal funds	(14,596)	(36,395)	(36,395)
88.30 Trust funds	(100)	(100)	(100)
88.40 Non-Federal sources	(2,176)	(4,505)	(4,505)
88.90 Total offsetting collections	(16,872)	(41,000)	(41,000)
89.00 Budget authority (net)	20,769,913	20,904,082	20,775,598
90.00 Outlays (net)	16,259,208	17,810,858	18,773,095

Status of Unfunded Contract Authority (in thousands of dollars)

Unfunded balance, start of year	31,810,280	33,471,465	36,345,547
Contract authority	20,669,913	20,874,646	20,775,598
Contract authority rescinded	...	(564)	...
Unfunded balance lapsing	(8,728)	...	...
Appropriation from highway trust fund to liquidate contract authority	(19,000,000)	(18,000,000)	(17,000,000)
Unfunded balance, end of year	33,471,465	36,345,547	40,121,145

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (in thousands of dollars)

Identification code: 69-8083-0-7-401 [Parent Schedule]	1993 Actual	1994 Estimate	1995 Estimate
Direct obligations:			
Personnel compensation:			
11.11 Full-time permanent	8,864	8,198	8,973
11.13 Other than full-time permanent	895	792	755
11.15 Other personnel compensation	831	946	893
11.19 Total personnel compensation	10,590	9,936	10,621
11.21 Civilian personnel benefits	2,177	2,191	2,175
12.10 Travel and transportation of persons	2,929	3,060	3,076
12.20 Transportation of things	768	791	806
12.33 Communications, utilities, and miscellaneous charges	348	426	445
12.40 Printing and reproduction	113	136	156
12.52 Other services	29,791	31,353	29,732
12.60 Supplies and materials	692	266	759
13.10 Equipment	296	325	325
13.20 Land and structures	147,878	259,077	214,215
14.10 Grants, subsidies, and contributions	16,716,629	18,961,585	19,513,715
14.20 Insurance claims and indemnities	677	680	674
19.30 Limitation on general operating expenses (see separate schedule)	404,561	546,257	598,545
19.90 Subtotal, direct obligations	17,317,449	19,816,083	20,375,244

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (In thousands of dollars)

Identification code: 69-8083-0-7-401 (Parent Schedule)		1993 Actual	1994 Estimate	1995 Estimate
Reimbursable obligations:				
	Personnel compensation:			
21.11	Full-time permanent	4,529	4,688	4,755
21.13	Other than full-time permanent	558	418	432
21.15	Other personnel compensation	80	77	81
21.19	Total personnel compensation	5,167	5,183	5,268
21.21	Civilian personnel benefits	372	1,148	1,163
22.10	Travel and transportation of persons	323	1,124	1,124
22.20	Transportation of things	105	430	450
22.33	Communications, utilities, and miscellaneous charges	78	319	319
22.40	Printing and reproduction	27	143	143
22.52	Other services	2,195	4,612	13,811
22.60	Supplies and materials	341	1,606	1,586
23.10	Equipment	766	3,681	2,615
23.20	Land and structures	2,259	14,499	6,266
29.30	Limitation on general operating expenses (see separate schedule)	5,239	8,255	8,255
29.90	Subtotal, reimbursable obligations	16,872	41,000	41,000

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Object Classification (in thousands of dollars)

Identification code: 69-8083-0-7-401 (Parent Schedule)	1993 Actual	1994 Estimate	1995 Estimate
Obligations resulting from allocations out:			
Personnel compensation:			
31.11 Full-time permanent	21,377	24,917	23,143
31.13 Other than full-time permanent	6,293	7,060	6,563
31.15 Other personnel compensation	2,187	2,552	2,348
31.18 Special services payments	112	126	116
31.19 Total personnel compensation	29,969	34,655	32,170
31.21 Civilian personnel benefits	5,583	6,451	6,012
32.10 Travel and transportation of persons	2,979	3,666	3,173
32.20 Transportation of things	1,682	1,981	1,759
32.31 Rental payments to GSA	1	5	2
32.32 Rental payments to others	6	13	7
32.33 Communications, utilities, and miscellaneous charges	5,283	6,241	5,532
32.40 Printing and reproduction	125	153	131
32.52 Other services	112,143	166,667	142,875
32.53 Purchases of goods and services from government accounts	19	19	19
32.54 Operation of GOCOs	38	38	38
32.60 Supplies and materials	4,039	7,776	4,718
33.10 Equipment	1,537	1,717	1,589
33.20 Land and structures	39,963	46,245	41,678
34.10 Grants, subsidies, and contributions	27,298	10,485	10,461
34.20 Insurance claims and indemnities	50	56	52
39.90 Subtotal, obligations from allocations	230,715	286,168	250,216

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Personnel Summary

Identification code: 69-8083-0-7-401	1993 Actual	1994 Estimate	1995 Estimate
Total compensable workyears:			
Direct:			
Full-time equivalent employment............	301	276	271
Full-time equivalent of overtime and holiday hours................................	24	27	25
Reimbursable:			
Full-time equivalent employment............	153	149	147
Full-time equivalent of overtime and holiday hours................................	2	2	2
Allocations out:			
Full-time equivalent employment............	810	851	843
Full-time equivalent of overtime and holiday hours................................	48	50	49

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (in thousands of dollars)

Identification code: 69-8083-1-7-401 (Supplemental Schedule)	1993 Actual	1994 Estimate	1995 Estimate
Program by activities:			
Direct program:			
00.10 Emergency relief	...	315,000	...
00.13 Miscellaneous programs	...	(18,374)	...
10.00 Total obligations	0	296,626	0
Financing:			
Unobligated balance, start of year:			
21.40 Appropriation	...	...	...
21.49 Contract authority	...	...	(18,374)
Unobligated balance, end of year:			
24.40 Appropriation	...	...	...
24.49 Contract authority	...	18,374	18,374
40.00 Budget authority (appropriation)	0	315,000	0
Relation of obligations to outlays:			
71.00 Total obligations	0	296,626	0
Obligated balance, start of year:			
72.40 Appropriation	...	...	280,923
72.49 Contract authority	...	...	(18,374)
Obligated balance, end of year:			
74.40 Appropriation	...	(280,923)	(110,081)
74.49 Contract authority	...	18,374	18,374
90.00 Outlays	0	34,077	170,842

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
FEDERAL-AID HIGHWAYS

Program and Financing (in thousands of dollars)

Identification code: 69-8083-5-7-401 (Rescission Schedule)	1993 Actual	1994 Estimate	1995 Estimate
Program by activities:			
10.00 Total obligations	0	(398,306)	(556,382)
Financing:			
Unobligated balance, start of year:			
21.40 Appropriation	...	...	...
21.49 Contract authority	...	...	1,322,964
Unobligated balance, end of year:			
24.40 Appropriation	...	...	...
24.49 Contract authority	...	(1,322,964)	(1,583,548)
39.00 Budget authority	0	(1,721,270)	(816,966)
Budget authority:			
Permanent:			
69.35 Contract authority rescinded (new)	...	(782,926)	(816,966)
69.36 Contract authority rescinded (unobligated balances)	...	(938,344)	...
69.90 Contract authority (total)	0	(1,721,270)	(816,966)
Relation of obligations to outlays:			
71.00 Total obligations	0	(398,306)	(556,382)
Obligated balance, start of year:			
72.40 Appropriation	...	...	(19,640)
72.49 Contract authority	...	...	(359,026)
Obligated balance, end of year:			
74.40 Appropriation	...	19,640	334,085
74.49 Contract authority	...	359,026	286,518
90.00 Outlays	0	(19,640)	(314,445)

Status of Unfunded Contract Authority (in thousands of dollars)

Unfunded balance, start of year	...	...	(1,721,270)
Contract authority	...	...	...
Contract authority rescinded	...	(1,721,270)	(816,966)
Unfunded balance lapsing	...	...	...
Appropriation from highway trust fund to liquidate contract authority	...	...	...
Unfunded balance, end of year	0	(1,721,270)	(2,538,236)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

Necessary expenses for administration, operation, including motor carrier safety program operations, and research of the Federal Highway Administration not to exceed [$468,856,000] *$598,545,000* shall be paid in accordance with law from appropriations made available by this Act to the Federal Highway Administration together with advances and reimbursements received by the Federal Highway Administration: *Provided*, That not to exceed [$168,475,000] *$290,815,000* of the amount provided herein shall remain available until expended: *Provided further*, That, notwithstanding any other provision of law, there may be credited to this account funds received from States, counties, municipalities, other public authorities, and private sources, for training expenses incurred for non-Federal employees. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

GENERAL STATEMENT

The Limitation on General Operating Expenses (LGOE) controls spending for virtually all of the salaries and expenses of the Federal Highway Administration. The resources for this account are derived solely from reimbursements and transfers from other accounts.

An administrative takedown from Federal-Aid Highways, combined with a transfer from Highway-Related Safety Grants, will fund the proposed General Operating Expenses obligations in FY 1995. The tables on the following page reflect the source of funding for FY 1994 and FY 1995.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

SOURCE OF FUNDING

(In thousands of dollars)

	Funds Available for FY 1994	Funds Requested for FY 1995
Transfers from:		
Federal-Aid Highway	$468,756	$598,445
Highway-Related Safety Grants	100	100
Limitation on GOE	**$468,856**	**$598,545**
Prior year unobligated balances	77,401	...
Estimated Reimbursables	8,255	8,255
Total Obligations	**$554,512**	**$606,800**

02/17/94
REVISED
3/3/94

GENERAL OPERATING EXPENSES
FY 1995 CONGRESSIONAL SUBMISSION

(Dollars in Thousands)

		ADJUSTMENTS TO BASE								
	FY 1994 ENACTED	FY 1995 PAY RAISE	LOCALITY PAY ANNUAL.	LESS ONE COMP DAY	MERIT PAY & WIGs	HEALTH BENEFITS	FTE REDUCT.	FY 1994 ADJUSTED BASE	PROGRAM CHANGES	TOTAL FY 1995 REQUEST
PERSONNEL RESOURCES:										
Full-time Permanent Pos.	3,372							3,372		3,372
Total FTE's:	3,399						-52	3,347		3,347
Full-Time Permanent	3,201						-49	3,152		3,152
Other than FTP	117						-2	115		115
Exempt	81						-1	80		80
FINANCIAL RESOURCES:										
Salaries and Benefits	$204,099	$3,544	$636	-$739	$2,193	$933	-$2,750	$207,918		$207,916
Travel	18,941							18,941		18,941
Transportation	1,560							1,560		1,560
Rent, Comm., & Util.	26,041							26,041	893	26,934
Printing	102							102		102
Other Services:	204,013							204,013	124,979	328,992
Contract Programs	168,475							168,475	122,340	290,815
Research & Technology:	156,825							156,825	108,590	265,415
Hwy.Res & Dev.	42,525							42,525	18,475	61,000
Intelligent Veh.\Hwy. Sys.	90,300							90,300	75,510	165,810
Tech. Deployment	12,000							12,000	3,000	15,000
LTP Performance	7,000							7,000	6,000	13,000
Locel Rural Tech. Assist.	500							500	4,605	5,105
Nat'l Hwy. Institute	4,500							4,500	1,000	5,500
Disadvant. Bus. Enterprise	10,000							10,000		10,000
International Transp.	400							400	400	800
OJT Supp. Svcs.	0							0	10,000	10,000
Rehab. of TFHRC	1,250							1,250	1,750	3,000
Tech. Asst. for Russia	0							0	1,600	1,600
Other Programs	35,538							35,538	2,639	38,177
Working Capital Fund	19,163							19,163	1,210	20,373
Other	16,375							16,375	1,429	17,804
Supplies	2,517							2,517		2,517
Equipment	11,583							11,583		11,583
Total Limitation	$468,856	$3,544	$636	-$739	$2,193	$933	-$2,750	$472,673	$125,872	$598,545

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES
(Including Motor Carrier Safety)
FINANCIAL REQUIREMENTS

A Limitation on General Operating Expenses of $598.545 million for FY 1995 is proposed, which represents a net increase of $129.689 million when compared to the estimated FY 1994 limitation level of $468.856 million. Increases are requested for adjustments to base and built-in changes ($3.817 million) and program increases ($125.872 million).

Analysis of changes from FY 1994 to FY 1995		
Limitation on General Operating Expenses, FY 1994		$468,856
Adjustments to base		
Pay Raise, 1995	3,544	
Locality Pay Annualization	636	
Less: One Compensable Day	-739	
Merit Pay & WIG's	2,193	
Health Benefits	933	
FTE Reduction	-2,750	
Subtotal, Adjustments to Base		3,817
Program Changes		
Other Services:		
Contract Programs:	(122,340)	
Hwy. Res. & Dev	18,475	
Intel.Veh./Hwy. Systems	75,510	
Tech. Deployment	3,000	
LTP Performance	6,000	
Local Tech Assistance	4,605	
Nat'l Hwy. Institute	1,000	
International Transp.	400	
OJT Support Services	10,000	
Rehab of TFHRC	1,750	
Technical Asst. for Russia	1,600	
Rent	893	
Working Capital Fund	1,210	
Other	1,429	
Subtotal, Program Changes		125,872
Total FY 1995 Requirements		$598,545

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

GENERAL OPERATING EXPENSES
NARRATIVE EXPLANATION

ADJUSTMENTS TO BASE	($000)
1995 Pay Raise	+3,544

This amount is requested to fund an anticipated 1.6% pay raise for 195 applicable work days in FY 1995.

Locality Pay Annualization	+636

This amount is to fund the locality pay annualization cost for FY 1995 that was enacted in FY 1994.

One Compensable Day	-739

This decrease is an adjustment for 260 compensable days in FY 1995 compared to 261 days in FY 1994.

Merit Pay and WIG's	+2,193

This amount includes costs associated with merit performance for GM and GS employees. This amount also includes mandatory within-grade increases required for those employees having spent the required time period at their present step-in grade while maintaining at least a satisfactory work performance rating.

Health Benefits	+933

Annual rate increases for the government share of health insurance premiums are provided by the Office of Personnel Management at the beginning of each fiscal year. The amount under this category is based on past health benefits increases.

FTE Reduction	-2,750

The amount of this reduction represents the cost associated with the elimination of a total of 52 FTEs in FY 1995. This staffing reduction was mandated by President Clinton in Executive Order 12839.

PROGRAM CHANGE +126,524

Rent

This requested increase is to cover anticipated rent rates of $893 thousand to be charged in FY 1995.

Other Services

Total Contract Programs: +122,340

The detailed justification for FHWA's no-year accounts is contained in the no-year funds section which follow.

WCF

This amount represents an anticipated increase associated with expanded operating expenses in Working Capital Fund charges of $1.210 million.

Other +2,081

$875 thousand is requested for (1) the continuation of existing contract costs associated with FHWA's conversion to the Departmental accounting system; (2) new program requirements for the third party drafts and costs for operation of the credit card program; (3) increased contribution by FHWA to the TRAC project; and (4) increased contract support with the Defense Contracting Agency.

An increase of $275 thousand is requested for PIARC assignments in France to provide assistance to European technology.

$153 thousand is for technical contractual services for items such as (1) the design and construction of the Boston Central Artery/Third Harbor Tunnel Projects.

$778 thousand for other miscellaneous services includes: (1) Repair of laboratory equipment, laboratory services; (2) Office repairs of furniture and equipment and alteration of buildings; (3) Visuals & graphic services as well as contractual services; (4) office renovation repairs throughout the regions; and Motor Carrier Safety related activities such as development of medical waiver program for insulin using drivers.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

GENERAL OPERATING EXPENSES

SUMMARY OF ADP REQUIREMENTS

The various dollar increases in ADP related items are discussed in the preceding narrative by object class. To assure adequate information is provided and to facilitate a thorough review of our administrative ADP requests, we are including the following summary of our resource requirements for ADP:

		FY 1994	FY 1995	CHANGE
2500	Other Services			
	Data Communications	1,080	1,080	0
	PMIS	171	171	0
	TCC	11,723	12,924	1,201
	Maintenance	493	493	0
	Training	529	529	0
	Systems & Programming	3,618	3,618	0
	FHWA 2000 Pilots	5,100	5,100	0
	AASHTO Data Network	600	600	0
	Other Cont. Services	436	436	0
	Subtotal, Other Services	23,750	24,951	1,201
2600	Supplies	282	282	0
3100	Equipment	4,724	4,724	0
Total ADP Requirements		**28,756**	**29,957**	**1,201**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

Object Classification (in thousands of dollars)

	1993 actual	1994 est.	1995 est.
Personnel compensation:			
11.1 Full-time permanent	158,917	157,173	159,169
11.3 Other than full-time permanent	4,942	6,166	6,186
11.5 Other personnel compensation	3,850	1,857	2,678
11.9 Total personnel compensation	167,709	165,196	168,033
12.1 Personnel benefits: Civilian	35,172	33,280	33,624
13.0 Benefits for former personnel	48	50	50
21.0 Travel and transportation of persons	18,065	18,941	18,941
22.0 Transportation of things	1,376	1,560	1,560
23.3 Communications, utilities and miscellaneous charges	8,087	26,041	26,934
24.0 Printing and reproduction	3,163	102	102
25.0 Other services	160,715	295,242	343,456
26.0 Supplies and materials	3,219	2,517	2,517
31.0 Equipment	12,246	11,583	11,583
93.0 Administrative expenses included in schedule as a whole	-409,800	-554,512	-606,800
99.0 Total obligations	...	...	...

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

Program and Financing (in thousands of dollars)

	1993 Actual	1994 Estimate	1995 Estimate
Program by activities:			
Program direction and coordination:			
Executive direction	1,115	1,195	1,214
Program review	413	443	450
Legal services	2,308	2,473	2,514
Public Affairs	255	273	277
Civil Rights	1,502	1,609	1,636
General program support:			
Policy	17,127	13,449	16,519
Research and development	62,170	86,213	100,730
Administrative support	69,857	74,760	75,992
Career development programs	8,271	8,864	9,010
Highway programs:			
Program development	28,259	39,037	47,748
Safety and system applications	45,747	145,208	160,932
Motor carrier safety	58,915	58,960	65,740
Federal lands highway office	1,356	1,454	1,478
Field operations	112,505	120,574	122,560
Total obligations	**409,800**	**554,512**	**606,800**
Financing:			
Reimbursable programs	-4,000	-8,255	-8,255
Unobligated balance available, start of year	-85,201	-77,401	...
Unobligated balance available, end of year	77,401	...	...
Limitation	**398,000**	**468,856**	**598,545**
Relation of obligations to outlays:			
Total obligations	409,800	554,512	606,800
Obligated balance, start of year	454,854	513,888	631,896
Obligated balance, end of year	-513,888	-631,896	-760,637
Outlays from limitations	**350,766**	**436,504**	**478,059**

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LIMITATION ON GENERAL OPERATING EXPENSES

Personnel Summary

	1993 Actual	1994 Estimate	1995 Estimate
Total compensable workyears:			
Full-time equivalent employment	3,469	3,399	3,347
Full-time equivalent of overtime and holiday hours	19	19	19

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

SUMMARY OF NO-YEAR PROGRAMS
(Dollars in Thousands)

The following table compares the amounts requested for no-year programs in FY 1995 with the amounts included in the FY 1994 budget:

No-Year Program	FY 1994	FY 1995	CHANGE
Research & Technology:	$156,825	$265,415	+$108,590
Highway Research & Development	*42,525*	*61,000*	*+18,475*
Intel. Vehicle/Highway Systems[*]	*90,300*	*165,810*	*+75,510*
Long-Term Pavement Performance	*7,000*	*13,000*	*+6,000*
Tech. Assessment & Deployment	*12,000*	*15,000*	*+3,000*
Local Tech. Assistance Program	*500*	*5,105*	*+4,605*
National Highway Institute	*4,500*	*5,500*	*+1,000*
Disadvantaged Business Enterprise	$10,000	$10,000	...
International Transportation	$400	$800	+$400
Fairbank Building Renovation	$1,250	$3,000	+$1,750
OJT Support Services	...	$10,000	+$10,000
Technical Assistance for Russia	...	$1,600	+$1,600
TOTAL NO-YEAR PROGRAMS	**$168,475**	**$290,815**	**+$122,340**

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[*] Amounts shown for IVHS exclude $113 million in contract authority contained in Sec. 6058 of P.L. 102-240; these funds are included in Federal-aid Highways.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

RESEARCH AND TECHNOLOGY
FY 1995 PROGRAM OUTLINE

Program Item	AUTHORIZATION/OBLIGATION LEVEL FY 1994	FY 1995	CHANGE
	(Dollars in Thousands)		
A. HIGHWAY RESEARCH & DEVELOPMENT	$42,525	$61,000	+$18,475
1. Safety	5,738	11,284	+5,546
2. Materials	3,685	5,614	+1,929
3. Pavements	7,259	8,737	+1,478
4. Structures	4,860	7,614	+2,754
5. Environment	4,080	5,760	+1,680
6. Right-of-Way	320	442	+122
7. Policy	6,869	7,481	+612
8. Planning	4,369	5,264	+895
9. Motor Carrier	5,345	8,804	+3,459
B. INTELLIGENT VEHICLE/HIGHWAY SYSTEMS	$90,300	$165,810	+$75,510
1. Research & Development	28,000	38,510	+10,510
2. IVHS Operational Tests	15,000	30,000	+15,000
3. Commercial Vehicles Ops.	10,000	10,000	...
4. Automated Highway System	10,000	20,000	+10,000
5. Advanced Technology Appl.	15,000	30,000	+15,000
6. Priority Corridors	...	15,000	+15,000
7. Deployment Support	...	10,000	+10,000
8. IVHS Program & Systems Supp.	12,300	12,300	...
C. LONG-TERM PAVEMENT PERFORMANCE	$7,000	$13,000	+$6,000
D. TECHNOLOGY ASSESSMENT AND DEPLOYMENT	$12,000	$15,000	+$3,000
E. LOCAL TECHNICAL ASSISTANCE PROGRAM	$500	$5,105	+$4,605
F. NATIONAL HIGHWAY INSTITUTE	$4,500	$5,500	+$1,000
TOTAL	**$156,825**	**$265,415**	**+$108,590**

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
A. HIGHWAY RESEARCH AND DEVELOPMENT	$42,525	$61,000	+$18,475
1. Safety	$5,738	$11,284	+$5,546

a. Highway Safety Information Management

BACKGROUND

Improved highway safety data collection and analyses will result in more appropriate allocation of highway safety resources, will improve the safety of the highway system, and will decrease traffic delays due to accidents. With the current annual loss of 40,000 lives and economic losses from highway accidents in excess of $100 billion, this research program is needed to aid in creating a safer highway system. Most existing processes and means of identifying highway safety problems are: based on procedures, methods, and systems which are over 30 years old; laced with quality control problems; exceedingly time consuming; and are excessively expensive because of the limited use of new technology.

OBJECTIVES AND APPROACH

This research area is intended to expand the ability of the FHWA, States, and local highway agencies to identify and address highway safety problems by improving the utility of existing State highway safety data, providing quick answers to specific questions, developing advanced technologies for safety data collection, creating improved analysis techniques, and guiding future safety research efforts.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

The major accomplishments in this research area were the development, operation, and enhancement of the Highway Safety Information System (HSIS), the identification of new and emerging technologies for improving the collection of highway safety data, and the further development of new safety analysis techniques.

The HSIS is a computerized, multi-state data base that links accident, roadway, and traffic data that is already being collected by the States. The HSIS is used to study current National and State highway safety issues as well as scope future research efforts. The HSIS is being designed as a state-of-the-art highway safety analysis tool that can serve as a model for future State systems. The HSIS does not provide national statistics; it is a resource for examining the relationship between highway safety and roadway design and operations.

The capabilities of the HSIS are being expanded by identifying and assessing new data sources and technological improvements.

The most promising of these enhancements have begun to be incorporated into the system. The latest advances in microcomputer technology are being used to store and analyze the data, videodisc photologs are be accessed to provide supplemental roadway data, and initial development of safety applications using Geographic Information Systems (GIS) is underway.

To date the HSIS has been used in over 35 highway safety studies. These include efforts being funded by FHWA, NHTSA, FTA, National Cooperative Highway Research Program, State DOTs, and Universities. Recently completed efforts include the relationship between median width and accidents, characteristics of transit bus accidents, assessment of the magnitude of passing accidents on two-lane rural roads, and assessment of older driver accidents at intersections.

In FY 1993, a study identifying new and emerging technologies for improving the collection of highway safety data was completed. This study examined a wide variety of technologies and assessed their potential for decreasing the costs of collecting safety data and improving the quality of the data. The most promising technologies included notebook and laptop computers for decreasing data collection and processing costs and improving data quality, Global Positioning System (GPS) receivers for increasing the accuracy of location data, optically-scanned report forms for decreasing data processing costs, and magnetic stripe drivers licenses for reducing data input time and increasing data quality.

Finally, further development of a new safety analysis program was undertaken and promising advances were made. This microcomputer-based analysis tool is designed to improve the ability to accurately identify high hazard locations and to assess the effects of safety improvements. New methodological developments increasing the flexibility of the system were identified. A initial analysis application was completed in FY 1993 and work on additional applications to a wide range of highway safety analyses was begun.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Significant advances in each of the three major program areas, HSIS, new technologies for data collection, and new analysis methodologies, are planned for FY 1994.

Three to four additional States will be added to the HSIS in FY 1994, increasing the range of problems which can be studied, advances in the database management hardware and software will be made to decrease the turn-around time, and continue development of safety applications of GIS will be undertaken. In conjunction with this effort, research examining the current collection, processing, and analysis approaches used at the State level will be completed and innovative alternatives identified.

A detailed evaluation of the most promising new technologies for safety data collection will build upon the previous research in this area. This effort will provide for a controlled field evaluation of the technologies to identify the implementation costs, the benefits in terms of cost savings and data quality improvement, and the institutional issues which must be addressed for successful deployment.

Work on the application of the new microcomputer-based analysis program to a wide range of safety analyses will be completed and enhancements to both the methodology and the user-friendliness of the software will be made. Associated research on the development of improved procedures for estimating exposure data for use in the safety analysis process will be also be continued.

Two new FY 1994 studies will be undertaken. A study titled "User-Friendly Systems for Safety Data Collection" will examine the feasibility of developing expert systems for application in the safety data collection and analysis process. A second effort titled "Improved State Data Systems - Phase I" will apply and evaluate short-term, low-cost improvements, identified in previous research, for the collection, processing and analysis of accident data at the State level.

PLANNED ACCOMPLISHMENTS FOR FY 1995

The FY 1995 program will focus on operating and maintaining the newly enhanced HSIS, testing the safety applications for GIS, completing the evaluation of new technologies for safety data collection, and refining the microcomputer-based analysis computer program. Expanded activities will be undertaken to evaluate a wider range of improvements in State data systems and to begin development of expert systems for safety data collection and analysis.

b. Human Factors Research for Highway Safety

BACKGROUND

Accident studies have attributed driver error to be a causal factor in as many as 80% of highway accidents. Most of these accidents are caused not solely by a driver's actions but rather by a failure of the interaction between driver performance and highway design. The human factors research program focuses on those features of the highway system which directly interface with the driver; e.g., traffic control devices, geometric design, and traffic operations. Driver characteristics studied include sensory, perceptual, and motor capabilities as well as cognitive processes such as information processing and decision making. The focus of the program is to define human capabilities and assure that highway standards are designed to meet these capabilities and limitations. Each study produces recommendations which address specific features of the highway environment. In the long term, driver performance handbooks will be developed to assist researchers, engineers, and designers in future highway design decisions.

OBJECTIVES AND APPROACH

The goal of the human factors research program in highway safety is to increase highway safety by improving the compatibility between the highway design and driver characteristics.

ACCOMPLISHMENTS TO DATE (FY 1993 and PRIOR)

The National Academy of Sciences completed a study, "Improving Safety and Mobility for Older People," in December, 1988. The final report, titled *Transportation in an Aging Society*, presents a comprehensive evaluation of the data available at that time on older driver and pedestrian problems and issues. The recommendations made in this report were the basis for the FHWA High Priority Area (HPA), "Improved Highway Travel for an Aging Population."

Three studies in the older driver HPA will be completed in FY 1993. "Traffic Maneuver Problems of Drivers with Diminished Capacity," identified the most difficult driving maneuvers for older drivers. Analyses supported the finding that turning and merging maneuvers are linked to the most exaggerated degrees of over involvement by older drivers. Older drivers also showed a relative insensitivity to conflict vehicle speed. Based on these results, recommendations included the development and application highway engineering changes to identify and reduce the excessive speed of conflict vehicles to reduce accident rates. The "Relative Visibility of Increased Legend Size vs. Brighter Materials" study results are undergoing final review and editing. Specific variables tested included type of retroreflective sheeting, font sizes and width, and changes to legend characteristics. Recommendations regarding changes to current text sign standards will be developed based on the results. Finally, the "Older Driver Perception-Reaction Time for Intersection Sight Distance and Object Detection" assessed the utility of current sight distance equations for older drivers, addressing values used in current equations and the models used as a basis for the equations.

Three new human factors contracts were begun in FY 1992. One study addresses older driver and pedestrian needs at intersections; the second will identify older driver needs in regard to freeways; the third will develop a comprehensive research program on demographic variables affecting driver performance.

Three new studies were let in FY 1993 including a simulator investigation of raised pavement markers, and procurement of a human factors field research vehicle. The third FY 1993 study will include a synthesis of information on driver behavior and highway features producing an older driver handbook and a research program to form the basis of the new Human Factors High Priority Area.

In 1993 the results of a jointly sponsored Transportation Research Board/Federal Highway Administration workshop on Human Factors Research Priorities of Highway Safety will be available. Results from this effort will form the basis for much of the future work in the human factors area.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Research results and recommendations in a variety of areas will be available in FY 1994. Some important products include information on improvements to delineation systems, guidelines for symbol sign design, new recommendations for object marker design and implementation, and guidelines on the design of pedestrian facilities. These results will be incorporated into the older drive handbook.

Two new studies are planned for FY 1994. One will address night driving and highway lighting requirements of drivers, with an emphasis on increasing the safety and mobility of older drivers. The second will evaluate all aspects of the design of construction and maintenance zones, to assure that the needs and capabilities of all drivers are included in the standards for these hazardous and confusing highway areas.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In FY 1995, guidelines on intersection geometric design to accommodate older driver and pedestrians will be available. The human factors field research vehicle will be delivered, greatly expanding the capabilities of the human factors program. The handbook on older drivers will also become available.

In FY 1995, a new human factors High Priority Area will be initiated. This program will be based on the recommendations and priorities identified in previous efforts in the program. The program will emphasize improving driver safety and mobility issues, focusing on reduction of specific accident types. The final outputs of the program will be a set of guidelines and countermeasures for use by highway designers and traffic engineers. These documents will serve as reference guides to aid in highway design modifications to improve safety and mobility.

Three new efforts are planned in FY 1995. Research will be conducted to quantify the impact of driver perception of hazards on highway safety; an implementation program for accommodating older road users through training and promotions will also be initiated; and a series of investigations to identify driver judgment errors will be performed.

c. Advanced Traffic Control Devices

BACKGROUND

This research seeks improved safety and efficiency of major highways through the application of new, traffic-responsive, roadside sign and visibility technology. It will provide conspicuous and timely roadside control and warning assistance to drivers based on current roadway, traffic, and environmental conditions. The research supports the National Transportation Policy which promotes signing systems that are more sensitive to the needs and abilities of the driver, including the growing population of older drivers.

OBJECTIVES AND APPROACH

The objective of this research is to improve the traffic control and safety on our streets and highways through the use of new and/or improved traffic control devices and techniques for possible incorporation into the *Manual on Uniform Traffic Control Devices*. On today's highways, warning and control information is usually provided through a system of signs, signals, and markings known as traffic control devices. Most of the signs and markings are "static," meaning the messages never change. However, warning and control device information needs to be recognized, understood, timely, and credible based on roadway, traffic, and environmental conditions, to properly assist the driver. Today the application of new, relatively inexpensive, real-time roadside technology can be used to provide more meaningful levels of warning and control information to the motoring public. Condition-responsive traffic controls, safety advisories, and hazard warnings through the use of traffic control methods and devices will be developed for roadside application. This program is to evaluate immediate roadway safety applications for problem areas such as sign and marking visibility, visibility and use of changeable message signs, warning of adverse environmental conditions such as fog, snow, dust, etc., and advance warning of intersection and other roadway conflicts.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Research is being conducted in three areas which include completing the current High Priority Area on "Retroreflectivity," initiating research on improving nighttime roadway visibility, and research on the use of condition-responsive traffic control devices.

In the "Retroreflectivity" area, criteria for maintaining in-service retroreflective signs and markings are nearly completed. Prototype measuring devices have been developed and are being field-tested which measure the retroreflectivity of signs and markings from moving vehicles. The service life of materials is being determined, and a predictive inventory model is being developed to provide the application of the research results for field use in determining when signs and markings need replacement. In an unrelated but similar study, driver visibility requirements for symbolic traffic signals are being developed. The implementation potential for using light emitting diodes (LEDs) as the light source for traffic control signals is also being studied.

The feasibility of automatic truck warning systems has been verified. Three of these systems are being installed on exit ramps on the beltway around Washington, D. C., two in Virginia and one in Maryland. The systems will detect the approach speed, and weight of trucks and determine if their speed is inappropriate given the type of truck, environmental conditions, and the sharpness of the ramp curvature. A flashing, fiber optics sign will provide the warning message.

Because changeable message signs (CMS) have developed with minimal human factors considerations, field operational problems have risen. Two efforts are underway pertaining to the use and visibility of CMS. These efforts are designed to improve the visibility of CMS and to improve the drivers' understanding of the messages presented on them.

In an effort to develop operational systems which can alert drivers of severe environmental conditions that have led to numerous multi-car chain collisions, the performance of all kinds of environmental sensors are being reviewed and assessed to detect fog, blowing dust, ice, and other similar conditions. This information will be used in future installations of systems designed to alert drivers of such adverse environmental conditions.

Two adverse visibility, prototype systems will be installed, one in Georgia and one in Utah, to alert drivers of hazardous driving conditions by using warning and control systems equipped with various speed and environmental sensor systems. Drivers will be alerted through the use of changeable message signs and roadside radio. This research will be particularly valuable in reducing multiple vehicle accidents which occur in fog, dust, or other reduced visibility conditions.

Over half of all highway fatalities occur at night even though night travel is only 25 percent of all highway travel. In FY 1992, a feasibility study was initiated to determine if stable, long-life fluorescent and ultraviolet technology can be combined to extend, possibly by more than 50 percent, the nighttime visual field of drivers.

Roadway lighting using the proposed small target visibility (STV) design will be evaluated by collecting accident experience on a large group of lighted roadways. The lighting designs calculations will be made for each site using STV and for conventional luminance and horizontal illumination. The lighting safety correlation will be compared for the lighting design procedures.

A study is being undertaken in Maryland to improve the safety, reduce delay, and improve overall operating conditions within work zones by using condition-responsive traffic monitoring and control devices and methods. Some of the SHRP devices will also be evaluated such as the queue detector and the intrusion alarm.

PLANNED ACCOMPLISHMENTS FOR FY 1994

In FY 1994, research will be continued to evaluate the effectiveness of the truck warning systems, the adverse visibility warning systems, and the work zone condition-responsive control systems. These evaluations will also recommend how future systems should be installed and operated. A preliminary assessment will also be initiated to determine other operational problem areas having poor safety records which could be improved or eliminated through the use of simple solutions using off-the-shelf type technology.

In FY 1994, additional research studies are planned on long-life fluorescent and ultraviolet (UV) technology. These studies will assess the developmental problems, industry initiatives, and the safety benefits of employing the new technology.

The final phase of the retroreflectivity program will be to evaluate the on-road performance and State acceptance of the new sign and marking retroreflectometers.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In FY 1995, a study on the operational evaluation of new technology for highway safety will provide the basis for determining the application of new traffic control devices and methods on highway facilities that will be cost-effective for both providing operational improvements and safety benefits.

In 1995, the safety benefits of employing UV activated delineation treatments will determine whether and under what conditions driver performance can be improved through the use of candidate fluorescent traffic control devices.

d. Pedestrian and Bicycle Safety

BACKGROUND

Pedestrian and bicycle accidents account for 13 - 17 percent of all highway fatalities in the U.S. on an annual basis. This program is designed to reduce the 102,000 pedestrian injuries (6,500 fatalities) and the 79,000 bicyclist injuries (900 fatalities) that occur each year on our Nation's highways. Reductions in these accidents will result in significant social and monetary savings. Medical costs as well as lost earnings of pedestrian/bicyclist accident victims currently exceed $30 billion per year. Pedestrian/bicyclist accidents are a persistent problem that have remained at the same level for years.

OBJECTIVES AND APPROACH

Pedestrian safety is a joint responsibility of the Federal Highway Administration (FHWA) and the National Highway Safety Traffic Administration (NHTSA). FHWA is responsible for engineering improvements (e.g., crosswalks, sidewalks, traffic signals, etc.) and NHTSA is responsible for education, training, and law enforcement efforts. Close coordination between the two agencies is essential if pedestrian fatalities and injuries are to be reduced. The long-term objective of this program is to develop procedures for pedestrians and bicyclists that can be incorporated into the normal highway planning, land use planning, and design procedures.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Known safety countermeasures such as curb cuts, longer traffic signal phases, and educational and training programs are being implemented. "Evaluation of Medians and Refuge Islands on Road Users" has developed guidelines on how these features can be used to improve pedestrian safety. The final report is under review. "The Effect of Bicycle Accommodations on Bicycle/Motor Vehicle Safety and Operation" studied different ways of constructing bikeways and their subsequent effect on motor vehicle safety and capacity. The User Manual has been submitted for publication. "Older Pedestrian Characteristics for Use in Highway Design" is evaluating the needs of older adult pedestrians that affect the geometrics and operations of highways. Field data collection is underway. An FY 1992 interagency study with the Center for Disease Control is reviewing and evaluating current procedures for identifying and typing pedestrian/bicycle accidents. "Trends and Crashes Involving Older Pedestrians" uses existing databases to classify pedestrian and bicycle accidents by type and location. The Highway Safety Information System was used to develop pedestrian accident and injury files for Minnesota.

Coding of the North Carolina pedestrian and bicycle data has been completed. Appropriate measures of exposure to hazards (such as numbers of trips or street crossings) will be developed and used to calculate pedestrian accident rates. A five-year study, "Pedestrian/Bicycle Research Program," was initiated to develop, manage and conduct pedestrian/bicycle research. Based upon past research studies and the on-going studies discussed here, recommendations for a long-term research program are being developed.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Implementation of the long-term research program developed under the "Pedestrian/Bicycle Research Program" will begin. A presentation of the research program is planned for the Transportation Research Board Pedestrian/Bicycle committee. Under the "Pedestrian/Bicycle Research Program," a Pedestrian Safety Awareness program will be conducted in conjunction with NHTSA. Although the research priorities of the "Pedestrian/Bicycle Research Program" have not been yet finalized by FHWA, two projects are currently high on the list - revision of Chapter 13 and 14 in the Highway Capacity Manual dealing with pedestrians and bicyclists and conduct a national study of traffic calming techniques to establish the current state-of-the-practice.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Because of the American with Disabilities Act (ADA) requirements, the Access Board will conduct a study on tactile warning devices (textured surfaces) used on curb cut ramps. FHWA will corroborate the Access Board's efforts under the "Pedestrian/Bicycle Research Program." Two additional studies identified in the long-term research plan will be initiated. These studies will begin to focus on the proposed guidelines and possible the development of data for the next update of the "AASHTO Policy on the Geometric Design of Streets and Highways." Candidate studies include joint activities with NHTSA on the identification of countermeasures and evaluation of design alternatives.

e. Highway Safety Design Practices and Criteria

BACKGROUND

Currently, highway design is based on a series of discrete decisions. For example, the decisions on alignment are largely based on the constraints of environmental impacts, right-of-way costs, and construction costs. In the redesign of existing roadways, the available right-of-way is often the deciding factor. Once alignment is established, the highway is designed in two phases: roadway design and roadside design. However, tradeoffs between various design elements based on safety considerations cannot be made because relationships between the design elements and safety generally have not been quantified, or, where relationships are known, they have not been incorporated into the agencies' practices.

OBJECTIVES AND APPROACH

This research is aimed at developing an integrated highway safety design process to systematically consider safety effects of roadway and roadside design elements in the development of cost-effective highway design alternatives. This research program will include the identification of critical problem areas through analysis of accident trends and data; the establishment of relationships between highway design features and accidents; the development of procedures and criteria for evaluating the safety cost-effectiveness of design alternatives; the development of a procedure for evaluating the design consistency of a roadway; and the establishment of concurrent procedures for evaluating the safety impacts of the roadway and roadside design phases.

The program will provide the tools for quantifying the safeness of highway design in much the same way that capacity and level of service quantify the traffic-operational performance of streets and highways. It will provide the designer with methods for assessing the safety impacts of design decisions. In this way, alternative designs can be compared on the basis of safety in addition to capacity, cost, and environmental concerns. The ultimate goal is to provide the "safest" highway system in a cost-effective manner.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

"State of the Practice Geometric Design Consistency" is evaluating US design practices from a human factor point of view. This study will develop recommendations for changes in the commonly used design procedures and geometric criteria which will lead to more consistent highway design. "Vehicle Dynamic Study" ia attempting to define a generic interface between commercially available CAD packages and vehicle dynamics models. This study will provide the designer with a visual method of evaluating design, provide FHWA and NHTSA with a model for studying rollovers and begin to standardize a computing environment as well as lead to the development of a driver model for design.

A major study, "Compendium of the Safety Effectiveness of Highway Design Features," has been completed. A critical review and synthesis of the existing literature on the relationships between accidents and geometric design elements has been published. Two experimental designs were initiated under "Experimental Plans for Accident Studies of Highway Design Elements." One study, closely tied to two NCHRP studies, will developed the methodology to be used in intersection accident studies. The second study will try to develop a procedure for measuring encroachments. The experimental designs will focus on how to conduct the study, costs and the potential for success. These experimental designs will provide the procedures for the collection of all field data. This data will probably be collected in those States included in the Highway Safety Information System.

"Conceptual Requirements for Highway Safety Design Models" provided three different concepts that could be used to develop an Interactive Highway Safety Design (IHSD) model. The results have been consolidated into a single concept that is now under evaluation by FHWA. To aid in the development of the IHSD model, FHWA has established a Geometric Design Laboratory at the Turner

Fairbank Highway Research Center. The Laboratory will coordinate the development of the model and provide for testing as the model evolves.

There are a number of studies now underway to determine the overall performance of current roadside safety hardware. "In-Depth Analysis of Guardrail and Barrier Accidents," is providing baseline information on the conditions (angle, speed, off-tracking, etc.) in which roadside safety hardware is impacted as well as resulting performance. "Side Impact Testing" resulted in the publication of three reports dealing with side-impacts from the highway perspective. This information summarizes the state-of-the-practice in impacts into narrow objects and is a first time evaluation of the problem of side impacts with roadside safety hardware. This information points to the necessity of design hardware as part of a vehicle/hardware system. "Development of Preliminary Severity Indices for Roadside Benefit/Cost Model," will allow the designer to discriminate between various types of roadside safety hardware based upon the severity of the damage to the vehicle.

"Interagency Agreement with Lawrence Livermore National Laboratory (LLNL) on Computer Simulation" resulted in FHWA and NHTSA joining forces to develop the non-linear finite element code DYNA3D for use in crash analyses. A subsequent interagency agreement between FHWA and NHTSA and the Department of Energy Lawrence Livermore National Laboratory "Implement, Test, and Evaluate DYNA/NIKE Model for Safety Analyses" has been initiated to adapt this code to crash simulation. In addition, FHWA and NHTSA have established the National Crash Analysis Center (NCAC) at George Washington University Virginia Campus. The NCAC contains combines FHWA and NHTSA crash film libraries and provides staff and facilities for analyzing the data. These joint study provide a common technical base for future FHWA and NHTSA research studies on roadside hardware and vehicle crashworthiness.

The FHWA continues to provide technical support to States in developing roadside safety hardware. "Traffic Barriers on Curves, Curbs, and Slopes," investigated the performance of existing longitudinal barriers under real world impact conditions using full scale testing. Three pooled-fund studies with State highway agencies are investigating areas where several States have common interests. "Testing of New Bridge Rail and Transition Designs," is developing and testing bridge safety hardware based upon different performance levels. "Testing of Small and Large Sign Supports," evaluated existing sign supports based upon a new AASHTO specification. The report has been submitted for publication. "Testing of State Roadside Safety Systems," provides assistance to the States in developing or improving roadside safety hardware. "Aesthetic Bridge Rails" developed a series of crash tested aesthetic guardrails, median barriers and bridge rails for park roads, parkways and other Federal Lands Highway roads.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Two pilot studies will be completed that will provide the basis for large scale field studies planned for FY 1995. Three new studies are planned in FY 1994. "Development of a Highway Safety Model" will provide a prototype of the Interactive Highway Safety Design Model (IHSDM). The prototype will be based largely on existing data in the HSIS system supplemented by field data. "Assessment of Motor Vehicle Characteristic" will study the physical characteristics of new motor vehicles and evaluate how these characteristics affect the performance of roadside safety hardware. "Roadside Safety Hardware Testing" provide a means of assisting State highway agencies study the effects of site conditions on roadside safety hardware. A new contract for the operation of the Federal Outdoor Impact Laboratory (FOIL) will also be awarded. The FOIL is a crash test facility used by FHWA and NHTSA to study vehicle crashes into narrow objects and gather validation data for finite element vehicle models.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Six starts are planned for FY 1995. Two field studies are planned to gather data and develop predictive models for use in the IHSDM. "Intersection Accident Procedures" will collect field data that will form the basis of the intersection accident procedure that will be used in the IHSDM. "Validation of Encroachment Frequency Rate/Frequency" will develop encroachment rates for different types of highways. "Side Impact: Finalization of Test Procedures and Preliminary Countermeasures" will develop test procedures and criteria for measuring the severity of side impact crashes into narrow objects. This study will be closely coordinated with on-going NHTSA work on impacts with narrow objects. A study to develop the Driver Module part of the IHSDM will determine the influence of the roadway on driving behavior and identify design features or combinations of features which lead to undesirable driving behavior. A study to develop the Consistency Module part of the IHSDM will develop a design consistency procedure based on current U.S. research and experience in other countries. A joint study with NHTSA, "VISTA," will complete the adaptation of the finite element program DYNA3D code to study vehicle crashes.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
2. Materials	$3,685	$5,614	+$1,929

The goal of this research is to provide for the preservation and enhancement of our Nation's highway system through the identification and development of new materials to strengthen and improve performance.

BACKGROUND

In this Program Area, there are currently four High Priority Areas (HPAs) intended to improve the quality of materials used in highway construction. These are: Performance-Related Specifications, Geotechnology, Corrosion Control of Structural Elements, and Structural Composites and Adhesives.

The HPA on Performance-Related Specifications is aimed at improving specifications for pavement construction by tying quality control tests more closely to pavement performance. The HPA on Geotechnology is enhancing the understanding of foundation materials and is permitting the design of more efficient and cost-effective bridge foundations, retaining walls, cut-slopes, and embankments. The HPA on Corrosion Control of Structural

Elements is continuing the battle against corrosion by developing cost-effective systems to protect new concrete construction and to rehabilitate existing bridges already suffering from corrosion-caused deterioration. The HPA on Structural Composites and Adhesives will provide definitive information on the performance of adhesives and fiber-reinforced polymer composites used on bridges and roadside structures. Adhesives provide a fatigue-resistant alternative to welding, while composites offer potential advantages in weight, corrosion resistance, and fatigue performance.

The HPAs entitled Corrosion Control of Structural Elements and Structural Composites and Adhesives contain both materials and structures research elements. Materials aspects are discussed in this section while structural aspects are discussed in a following section on structures research.

OBJECTIVES AND APPROACH

The objectives of this program are (1) to identify new materials or additives which can be incorporated into highway pavements and structures to strengthen these systems and enhance their service lives; and (2) to develop new techniques for construction and rehabilitation which will extend the lives of materials in both new and existing pavements and structures. High strength concretes, improved steels, composites, adhesives, and timber are among the materials under consideration in response to the first goal, while performance-related specifications, improved ground reinforcement and stabilization techniques, and cathodic protection of reinforcing and prestressing steel are examples of techniques being developed in response to the second. Environmental concerns are studied wherever appropriate, as are uses of recycled waste materials. Technology developed in the Strategic Highway Research Program (SHRP) is considered for additional research or incorporated into the four HPA's as appropriate.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Studies on Performance-Related Specifications (PRS) have produced: Frameworks and initial sets of PRS for both hot mix asphalt and portland cement concrete pavements; laboratory relationships between materials and construction variables such as density and asphalt content and indicators of pavement performance; plans for field studies to link construction quality indicators, such as degree of dowel alignment, to the performance of portland cement concrete pavements; and initial design of an accelerated field test of hot mix asphalt pavement sections both conforming and nonconforming to specifications. In Geotechnology, improved guidelines for the design of drilled shaft foundations in intermediate geomaterials (soil/rock mixtures) were developed from correlations of in situ soil penetration tests with field load tests. A system of national geotechnical test sites was established to provide for efficient research testing at well-characterized locations.

The HPA on Corrosion Control is identifying the extent of corrosion of prestressing steel in concrete bridges and is developing protective measures for corrosion protection. Eight pre- and four post-tensioned prestressed concrete (PS/C) bridges built between 1954 and 1967 and exposed to adverse environments were field surveyed. Despite severe exposure, fully grouted post-tensioning steel showed little corrosion; pre-tensioned elements, shielded only by the concrete cover, were found to be much more susceptible to corrosion. Cathodic protection was found to be feasible for pre-tensioned members and for anchorage areas in post-tensioned bridges, but not for steel in grouted ducts. In the steel bridge coatings area, research efforts to identify durable corrosion-resistant materials that comply with environmental regulations are nearing completion. Performance data on high solid, powder and water-based materials has been provided to the Environmental Protection Agency for use in formulating a volatile organic content (VOC) rule for architectural and industrial maintenance coatings. Similarly, results of a study of lead collection, containment, and stabilization during lead-paint removal have been provided to the Occupational Safety and Health Administration (OSHA) for use in developing a new Lead in Construction standard.

In the HPA on Structural Composites and Adhesives, several studies showed steel-to-steel bonded connections can have significantly longer fatigue lives than welded connections.

These and other current studies will provide steel bridge designers with long-term data and design criteria for using adhesive bonds in steel bridges. Studies of the performance of fiber-reinforced polymer (FRP) composites in various structural elements established preliminary values for strength, fatigue, deflection, time-dependent behavior, environmental durability, and economic feasibility. Design data and procedures have been developed for using FRP reinforcing bars in concrete bridge decks, thus providing a new weapon to combat the effects of corrosion.

PLANNED ACCOMPLISHMENTS FOR FY 1994

In FY 1994 work in the HPA on Performance-Related Specifications (PRS) will include construction and initial loadings of conforming and nonconforming hot mix asphalt pavement test sections and initiation of field studies relating construction quality indicators for portland cement concrete to pavement performance. In Geotechnology, two comprehensive computerized data bases which will be useful to geotechnical engineers in design of bridge foundation systems and ground improvement projects will be completed. The data bases will give the engineers access to information such as soil properties, site conditions, and pile parameters that can be used to improve design procedures.

New measures for protecting new and restoring existing steel and concrete bridge components will be initiated; these will provide major reductions in rehabilitation costs for bridges while extending their service lives. Cathodic protection will be applied for the first time to pre-tensioned prestressed concrete bridges in both coastal and northern climate regions, and optimum sacrificial anode cathodic protection systems for both prestressed and reinforced concrete bridge members will be identified. Problems of corrosion and disbonding of epoxy-coated reinforcing steel in coastal/marine environments will be studied. In the steel bridge area, field studies will be initiated to find environmentally safe coatings for the maintenance and repair of noncompliant existing coatings. A study to provide a realistic combination of tests for predicting the field performance of coating systems will continue; the array will include accelerated tests which will characterize coating performance under several different environmental conditions. Finally, a series of studies to investigate the environmental durability of fiber-reinforced polymer (FRP) grid- and grating-type reinforcement and its compatibility with concrete will be completed.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In the HPA on Performance-Related Specifications (PRS), the 2-year accelerated field test of PRS for hot mix asphalt will continue, as will laboratory and field tests to establish relationships between construction quality characteristics and portland cement concrete pavement performance. Geotechnology research will evaluate current methods for predicting the durability of geosynthetic (polymer) materials used to reinforce soil embankments and retaining walls.

Corrosion problems in concrete structures will continue to be addressed with the development of new coatings and metallic alloys; the new materials are designed to be more corrosion-resistant than the fusion-bonded, epoxy-coatings presently used on reinforcing steel in concrete structures in adverse environments. A steel bridge coatings study will be initiated to look at ways of improving steel structure design procedures to reduce corrosion, improve coating performance, and make maintenance easier. Designs to provide adequate drainage from the road surface and from steel details will significantly reduce corrosion problems, while the labeling of permanent rigging or scaffolding points can make later maintenance efforts significantly easier. Another FY 1995 study will be initiated in the coatings area to identify new highway delineation paints which will meet proposed Environmental Protection Agency standards for volatile organic compound emissions; current paints will not meet these standards. Accelerated test methods will be developed, under separate studies, to determine the long-term properties of both structural adhesives and composites used in highway bridge structures, and the long-term behavior of highway bridge structures using these materials.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
3. Pavements	$7,259	$8,737	+$1,478

The goals of this research are to provide for the preservation and enhancement of our Nation's highway system; to increase the productivity of the United States' transportation industry through the implementation of new techniques, procedures, and specifications to improve the quality of construction and extend the service life of pavements; improvement of management techniques to monitor the condition of pavements and to provide strategic guidance on when and how to maintain or rehabilitate to provide for uninterrupted service, and development of the necessary technology to identify the impacts of and provide the pavements necessary to accommodate evolving heavy vehicles.

This category is divided into three Program Areas: Construction, Repair, and Rehabilitation of the Highway Infrastructure; System Management to Increase Service Life; and Commercial Vehicles/Pavement Interaction. These areas include improved construction procedures, technology, and specifications; contracting techniques; evaluation of the characteristics and performance requirements of the components which comprise the highway pavement system; instrument development and evaluation, development and validation of testing equipment and methods; pavement condition and evaluation procedures and technology, pavement loading, response, and performance models; accelerated testing of pavement performance; and evaluation of heavy vehicle loading and pavement performance. This program is closely integrated with the research on advanced materials.

The Strategic Highway Research Program (SHRP) was completed in 1993. This program addressed four areas all directly related to pavements: Long Term Pavement Performance (LTPP), Asphalt, Highway Operations, and Concrete and Structures. Additional research and development has been identified to validate the findings of SHRP as well as to complete projects and to support development of products. FHWA plans to provide technical, as well as financial support for this essential development effort.

a. Construction, Repair, and Rehabilitation of the Highway Infrastructure

BACKGROUND

One of the most significant determining factors in the performance of the highway pavement is the quality of construction and the care and preservation received throughout its service life. The importance of developing technology to assure design assumptions are in-place in the constructed pavement cannot be underrated. With the establishment of the National Highway System and the eligibility of maintenance for federal-aid, the ability to optimize the timing of maintenance and rehabilitation activities will significantly extend the life of our highways. A significant challenge faces the United States in preserving the existing investment in our infrastructure and improving the strength and life of our pavements to meet the increasing demands for more efficient movement of goods and services.

OBJECTIVES AND APPROACH

The objectives are to improve the quality and productivity of the components of the highway pavement system, bases and sub bases, asphalt, and portland cement concrete mixtures, pavement construction, rehabilitation, and maintenance. Included are the development of equipment and techniques to determine optimum time and method of maintenance and rehabilitation, and reduce disruption of service to motorists. Technology to assure that the design assumptions are constructed will be developed. Technology to monitor the construction process and make needed revisions will be investigated. Results from the SHRP program on the effectiveness of preventive maintenance will be evaluated and additional development undertaken to promote this important concept.

The SHRP "Performance Based Specifications" for asphalt and asphalt mixtures will be validated using FHWA's Turner Fairbank Highway Research Center's (TFHRC) Pavement Testing Facility (PTF) and the Accelerated Loading Facility (ALF). A second ALF will be procured to increase the productivity of the PTF.
Included in this program is research and development on Crumb Rubber Modifier (CRM) asphalt pavements as directed in Section 1038 of the Intermodal Surface Transportation Assistance Act (ISTEA). This research is to be conducted in two phases the first to address the current level of knowledge and ability of existing data to define the performance of pavements constructed using CRM, the recyclability of CRM asphalt pavements, and environmental and health effects of using CRM and the opportunities that exist for the utilization of other waste products in highway appurtenances. A second phase will be undertaken to fill in the knowledge gaps, determine long-term pavement performance, and define environmental and health risks, as well as to develop procedures and technology to effectively utilize waste tires in highways. Future research will be directed towards identifying innovative and productive applications of recycled materials to improve pavement performance, reduce environmental impact, and provide for cost effective solutions to a growing National solid waste problem.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Laboratory monitoring and technical support were continued to the States for construction and evaluation of European Stone Matrix Asphalt (SMA) pavements. Cooperative research with the asphalt industry is underway to develop mixture design and analysis guidance to assist in the implementation of the technology to

U.S. practice. SMA pavements offer a durable, rut resistant longer wearing surface course alternative to our pavements. Based on European experience this technology has the potential for extending wearing course life under severe conditions of load and cold climate.

Procurement was continued for asphalt mixture design and analysis equipment from Europe for the preparation of special pavement test specimens and evaluation of pavements for resistance to rutting under heavy loads. Preliminary testing was conducted in cooperation with the Colorado Department of Transportation. Specimens from the SHRP "Performance Based Specifications for asphalt binders and SMA were evaluated using this technology. This work will attempt to incorporate the capabilities of the European technology to improve the performance of U.S asphalt pavements.

Testing equipment for asphalt binder design and analysis developed under the SHRP is being procured. Testing was initiated to validate the procedures and develop documentation and operational guidance for their use by the States and industry. This program will allow the development and implementation of Performance Based Specification that should improve quality and extend service of asphalt pavements.

Renovation of FHWA's current ALF after 5 years of continuous service was completed. These upgrading and improvements in our accelerated testing capability will help to keep FHWA in a leadership role in developing and promoting innovation in highway engineering technology. A program was initiated with the State highway agencies to promote accelerated pavement testing technology and to encourage development of this capability as national and regional resources. An ALF was constructed for the Louisiana DOT. The Indiana DOT has initiated a facility at Purdue University. A "mobile load simulator is under development for the Texas DOT. California, Florida, and the U.S. Army Cold Regions Research and Engineering Laboratory's (CRREL), Frost Effects Research Laboratory (FERF) are initiating programs to obtain this capability.

The test pavements at the PTF were reconstructed using the "Performance Based Specifications" for asphalt binders developed by the SHRP. This reconstruction also included revisions to improve productivity at this important FHWA research laboratory. Accelerated testing to validate the design assumptions was initiated. A procurement was initiated to obtain a second accelerated loading device to increase productivity of the PTF.

A joint study with the Environmental Protection Agency was conducted to comply with the requirements of Section 1038 "Use of Recycled Paving Materials". The results of this projects and other work were incorporated into the Joint Department of Transportation, Environmental Protection Agency Report to Congress on the Use of Recycled Paving Material.

Research on the coefficient of thermal expansion of portland cement concretes was continued. This work is supporting the SHRP Long Term Pavement Performance monitoring program. It will increase our ability to understand the effects of temperature changes and conditions on the performance of portland cement concrete pavements.

Outreach activities included joint FHWA/Industry research, development and technology forums on Crumb Rubber Modifiers in Asphalt Pavements, Use of Recycled Materials in Highway Applications. Rigid Pavement Strategic Research Needs and Asphalt Materials, Mixtures and Pavement Technology Research Needs. The results of these forums increased communication and cooperation between FHWA and the industry as well as assisting in furthering understanding of programs and priorities.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Research on the effects on pavement performance of aggregates from recycled portland cement concrete pavements will be initiated. This work will permit the selection and reuse of worn out pavements in new or reconstructed pavements.

The program to update the research capabilities at TFHRC existing equipment to evaluate the effects of temperature and the engineering mechanics of pavements at the Pavement Isothermal Testing System (PITS) will be refurbished. Renovations of the pavements laboratories are planned. Design and fabrication of a second ALF will begin. Preliminary analysis and initial design will be initiated to provide the capability to provide for increased control of pavement temperature and environment at the PTF. This capability will significantly enhance the ability to control these significant variables on pavement response and performance. Our program to enhance the Nation's capability for accelerated evaluation of pavement performance will be continued. Plans for a symposium to include the international community are underway.

A cooperative international research program will be initiated to evaluate the performance criteria for pavement bases and subgrades. The first phase of this project will be conducted at the laboratories at TFHRC with CRREL, Denmark, Finland, Cornell University and FHWA. It will develop the research plans for a cooperative laboratory, Frost Effects Research Facility, accelerated loading, and full scale pavement test.

Research to validate the performance based specifications for asphalt binders will be conducted at the FHWA's PTF. This program will be the first full scale validation of the SHRP asphalt specifications. It is critical to provide early confirmation of the research findings and to promote the implementation of this important research program. An important part of this first phase of the research will include the evaluation of innovative in-situ pavement monitoring instrumentation using the rehabilitated Pavement Isothermal Test System at TFHRC.

Testing in our Bituminous Mixtures Laboratories using European and SHRP asphalt mixture design and analysis technology will be continued. The purpose of this evaluation is to provide the validation of this technology and framework for incorporation into U.S. practice. The support services contract to our labs will be expanded.

Additional CRM research will be initiated to address un resolved issues such as long-term pavement performance and life cycle costs of new and recycled CRM pavements, structural design, mixture design and construction guidance. A National Pooled Funds Study in which 33 States are participating will be initiated to evaluate the long term performance and cost effectiveness of asphalt pavements constructed with Crumb Rubber Modifier from recycled tires and pavements recycled which contain CRM. FHWA will also conduct research to develop improved guidance on the structural design of CRM asphalt pavements, mixture design and analysis incorporating the SHRP "Performance Based Specification" asphalt technology, production of hot mix asphalt, pavement construction and maintenance. Further environmental and health testing may be conducted by EPA.

A new High Priority Area (HPA) on Construction Quality Technology will be initiated this year. This program will focus on identifying and developing procedures and technology which monitor the construction process and permit adjustments and corrections to maintain quality. The HPA will focus on validation of performance based specifications being developed for asphalt and development of specifications for portland cement concrete pavements. However, this research will also address important components of the pavement such as base and subbase and drainage. Improving the quality of pavement construction should result in substantial savings to the taxpayer and significant increase in pavement service life. The ability to monitor and control construction quality should reduce construction problems and permit adjustments needed to achieve quality.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Testing of the SHRP asphalt binder performance based specifications will be completed at the PTF. Evaluation of the "Performance Based Specification" mixture design and analysis will be initiated and may be followed by tests on pavements using SMA, CRM, and recycled CRM. Continued development of accelerated pavement testing capability at TFHRC and establishment of additional capability by the States can offer substantial savings due to early evaluation of pavement performance and accelerated implementation of innovation. The feasibility and need for a full scale test track facility in the immediate proximity to TFHRC, suburban Maryland or Virginia, will be evaluated. This capability could permit significantly enhanced capability to understand the response and performance of innovative pavement technologies including new materials, use of recycled materials, new design assumptions.

Rehabilitation of the Pavement Laboratories at TFHRC will be nearing completion. Test equipment and support equipment in the laboratories will be upgraded to the latest technology. A significant improvement in our capability to evaluate the effects of bases and subgrades through rehabilitation and upgrading of the laboratories and the international cooperative research program will be achieved. The involvement of the international researchers will provide us access and insight into the latest in European technology.

Research will be underway on the second phase of CRM technology. Accelerated testing of CRM pavements will be conducted to validate design and construction guidance. Research may be initiated to evaluate other recycled materials identified as having potential applications for pavements. The focus of this research will be to develop engineering, environmentally and cost effective guidance for use. The second phase of the international cooperative research on bases and subgrades will be initiated. This will include full-scale controlled environment testing at the CRREL Frost Effects Research Facility.

b. System Management to Increase Service-Life

BACKGROUND

By 1994 all the States will have Pavement Management Systems in place. These management systems offer a powerful tool to more effectively preserve and enhance the productivity of our Nation's pavements. Research has been conducted on methods to measure and evaluate the condition of existing pavements and to speed up and automate data collection and evaluation; predict future performance with and without remedial action; prioritize and schedule activities on a pavement network; and organize a network through a Geographic Information System (GIS) or other means.

OBJECTIVES AND APPROACH

The objective of this program is to develop strategic management tools and procedures to optimize the service life of the pavement and to maintain a continued high level of productivity for surface transport. The importance of proactive management of our Nation's pavements has been recognized by the Congress in the ISTEA. For the first time Federal-aid resources were made available for maintenance including preventative maintenance. The next step in this progression will be to develop the knowledge and the tools for effective proactive intervention. Under the proposed new Systems Management Area, performance prediction, rehabilitation and maintenance strategies and cost models will be refined; new and improved high speed nondestructive test, evaluation, and condition measuring methods will be developed in coordination with the States and other countries; and the efficiency of databases used for the storage, retrieval, and interpretation of data will be enhanced. These investigations will determine the influence that trucks and their components have on the performance and service life of pavements. In cooperation with the research on the Effects of Commercial Vehicles on Pavements an understanding regarding the relationships between pavement condition and truck interaction on cargo, vehicles, and the pavement will be established. This is critical to increased productivity of our transportation industry as well as for preservation and improvement of our highway infrastructure. Pavement management will be integrated with bridge management, safety management, congestion management, and maintenance management in order to provide a management system which incorporates the entire highway system. A significant focus will be undertaken to develop optimum strategies for rehabilitation and maintenance of pavements at the network, as well as the project level.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Work was completed on "Development of Pavement Damage Models to Address the Effects of Load and Environment," and on a model for deteriorated and rehabilitated pavements. In FY 1992, work began on a model for estimation of maintenance and rehabilitation costs. One of the most difficult factors in the development of models is the ability to accurately reflect costs. An important product of this research will be the development of a framework for establishing maintenance and rehabilitation costs. An integrated environmental model was developed initially for FHWA by CRREL. Enhancements and refinements were recently added by the Texas A&M University. This tool provides the potential for significant capability to predict and to evaluate the effects of environmental factors on pavement response and performance.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Research utilizing the capabilities of the Minnesota test road (MNROAD) will be initiated to determine the effects of the environment on long term pavement performance and to validate and calibrate the FHWA integrated environmental model. A significant effort is also underway in the LTPP. The intense instrumentation in MNROAD will provide for greater detail of conditions and response needed to understand the significant mechanisms. The LTPP will provide the data base for national and regional interpretation.

The basic tools needed to conduct an analysis of pavement performance for both flexible and rigid pavements will be developed and coupled with dynamic impacts of heavy vehicles from the Truck/Pavement Interaction high priority research program.

Research will begin for the development of pavement condition evaluation technology to determine structural capacity and remaining service life of pavements. This technology will be directed towards accurate, high speed, nondestructive assessment of pavement structural capacity and condition. This capability is needed to more accurately determine the condition and remaining life of pavements. This research will be undertaken cooperatively with the Federal Aviation Administration as they seek to understand the effects of the next generation on airport pavements and we seek to understand the relationships for tomorrow's trucks.

Work to develop a framework for compatible evaluation and reporting of pavement condition will be initiated. At present there is limited national transferability on data used for pavement management. However, with the evolution of objective, high speed, nondestructive technology, the timing is good for developing a uniform system. A uniform system of evaluation and condition reporting is essential for effective management of the National Highway System. This initiative should support FHWA's stewardship responsibilities for the National Highway System.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Development of technology for the high speed evaluation of pavement structural capacity will be initiated. This activity will begin the transition from evaluation of pavement condition based upon symptoms of failure or deterioration to assessing the remaining service life. Guidelines on pavement performance data collection and processing will be developed. Mechanistic and empirical performance models for maintenance and rehabilitation will be under development.

c. Commercial Vehicles/Pavement Interaction

BACKGROUND

As the U.S. trucking industry moves forward to meet the demands of international competitiveness and deregulation, it will seek to find ways to become more productive and competitive. The industry is looking to ways to increase effectiveness and to reduce operating costs. A strong, high level of service pavement is essential for this to occur. At present a significant percentage of our Nation's pavements are in fair, mediocre and poor condition. If the U.S. is to increase its international competitiveness, the transportation industry will have a significant role to play. Increased transportation productivity will result in a significant demand on pavement life. A partnership between our pavements and commercial vehicles is needed to strengthen the pavements and to permit increased productivity. Both are essential if we are to be successful in meeting the challenges of the next century.

This Program Area includes the Truck/Pavement Interaction High Priority Area (HPA). A prototype Dynamic Truck Actuator (DYNTRAC) has been constructed to study in a laboratory environment the effects of different tires, inflation pressures, suspensions, and vehicle configurations on pavements. The construction and instrumentation of a test pavement at TFHRC in conjunction with the data from DYNTRAC will enable the investigation of the influence of environmental conditions at the surface and within the pavement section on the response and performance of a flexible pavement under truck loading.

Work using the three facilities at TFHRC: the PTF, the DYNTRAC, and the test road will provide information for re-evaluating pavement design concepts and procedures, as well as evaluating the innovations developed by the trucking industry to determine effects on pavements.

OBJECTIVES AND APPROACH

The objective of this research focuses on the interaction of trucks, and highway pavements. It addresses the effects of increased loading, changes in vehicle configuration, suspension, tires, axles, etc. on the dynamic effects of heavy vehicles on pavement response and performance. Close cooperation with the heavy vehicle industry will promote better understanding and will provide for improved coordination and understanding of needs and capabilities.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Completed activities include a Load Equivalency Workshop and the development of truck pavement interaction models, the construction of a prototype truck actuation system (DYNTRAC) with four actuators, the installation of an instrumented test road, development of an instrumented truck, and the development of a pavement cost model for truck policy analysis. Preliminary measurements of pavement response to dynamic loadings from heavy vehicles were conducted at the TFHRC test road. Preliminary design work was performed to develop wheel force transducers to measure the over the road forces transmitted from the heavy vehicle. These activities contributed to the establishment of a capability at TFHRC to develop an understanding of the engineering mechanics of vehicle pavement interaction. Work to complete the shakedown of the prototype DYNTRAC was completed and laboratory testing of various vehicles initiated.

Significant relationships were established on the effects of increased tire pressures and the use of "super single" (wide) tires using TFHRC's PTF. The results of this research have received significant interest among the States and the trucking industry. Findings show two to four times the wear to pavements from "super single" tire use relative to the use of conventional dual tire technology. Research to measure shear forces exerted on pavements by heavy vehicles was initiated and field measurements conducted. This work will aid in our understanding of pavement performance problems at intersections and ramps. It will also expand our extremely limited understanding of interfacial forces between the tire and the pavement. This knowledge is important if we are to promote development of truck productivity and preservation of the pavement system. An important ultimate result of this research program will be the ability to project pavement structural needs to provide for improved highway transportation productivity.

Outreach efforts include technical exchanges and briefings with the American Trucking Association, participation and presentations to the Truck Maintenance Council, a session at the Transportation Research Board with the truck and truck components industry, the highway community and researchers.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Prototype wheel force transducers will be fabricated, tested, and validated. The results of the laboratory research using DYNTRAC will be validated using field data from instrumented vehicles, pavement profiles, wheel force transducers, and instrumented pavements. With the completion of the development of these equipment, a field data base on the effects of heavy vehicles on pavements will be generated. The use of weigh-in-motion data combined with laboratory and controlled field tests, including pavement instrumentation, will be very valuable to the development and calibration of Truck Pavement Interaction Models. These models and the analytical tools can assist in the evaluation of heavy vehicle modifications or innovations to pavement performance and the more rapid implementation of effective technology.

An international cooperative research effort with the Organization for Economic and Cooperative Development will be initiated. This research will include the use of the DYNTRAC at TFHRC to verify the "road friendliness" of air suspension systems. This technology is being granted higher weight limits in the European Community because of the purported reduction in damage to pavements.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Preliminary design work will begin for upgrading the DYNTRAC to 10 actuators so that 18 wheelers can be tested. Modifications to existing pavement testing facilities, primarily equipment alterations and additions, are necessary to quantify environmental effects that will be incorporated into the models. These results will provide pavement design and policy guidance for future evaluation of the U.S. truck fleet. Our ability to be on line in the evaluation of technology to improve the productivity of our nation's highway transportation fleet and to provide pavements capable of meeting the demands is critical to preserving the investment and meeting the challenges of global industrial competitiveness.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
4. Structures	$4,860	$7,614	+$2,754

The goal of the Structures research program is to conduct research and develop, experiment with, and evaluate technology which will preserve and enhance the highway system through the implementation of new design and construction techniques including the necessary technology to accommodate heavier vehicles.

Structures research is divided into 3 Program Areas: Construction, Repair, and Rehabilitation of the Highway Infrastructure; System Management to Increase Service Life; and Commercial Vehicles. These Program Areas describe improved construction procedures, specifications, contracting techniques, and evaluation methods. Research has already been initiated in five High Priority Areas (HPA): Corrosion Control of Structural Elements, Structural Composites and Adhesives, Seismic Protection, Non-Destructive Evaluation, and Scour (Critical Substructural Elements). The High Priority Areas listed fully support the goals of the 3 Program Areas identified.

A major outreach program was conducted which resulted in the identification of HPA's of critical research to address technological needs in the 3 Program Areas. Research ideas provided by our partners are impacting program areas and starting to produce results. Of note one additional HPA, Bridge Design and Durability, that was identified to compliment the existing HPA's will be initiated as resources become available.

a. Construction, Repair, and Rehabilitation of the Highway Infrastructure

BACKGROUND

All aspects of structures research are involved in construction, repair and rehabilitation of the highway infrastructure to some degree or another. Most all research from the Critical Substructural Bridge Elements HPA, falls within the scope of this Program Area. It deals with scour and stream stability problems at bridges and substructure integrity issues as well. Eighty-six percent of the Nation's 577,000 bridges are located over water and subject to flood hazards and scour. Scour and erosion of the bed material from around or under the bridge foundation is the leading cause of bridge damage and failure. Studies in the HPA are aimed at understanding and simulating flow and scour processes; emphasis is being given to understand and develop countermeasures for bridge pier and abutment scour, stream channel migration, and embankment erosion using rock riprap and other protective materials and methods.

Other technical areas encompassed by this program area include bridge falsework and structural forming used during construction and repair. Two timber bridge research programs have been initiated: One at West Virginia University and another longer-term program under ISTEA. In the latter, 15 research or technology transfer studies have been started. This program will continue for 5 more years.

The HPA on Structural Composites and Adhesives will provide guidance and criteria for the design and fabrication of adhesives and fiber-reinforced polymer (FRP) composites in bridges. Adhesives provide a fatigue-resistant alternative to welding, while structural use of composites offer potential advantages in weight, corrosion resistance, and fatigue performance.

The National Earthquake Hazards Reduction Program (NEHRP) focusses attention on methods to determine the vulnerability of highway structures to earthquakes and to improve seismic retrofit technology. A highly focused short-duration HPA has been initiated to advance the understanding of earthquake resistant design, construction, and retrofit technology for highway bridges through the development of concise, nationally-applicable guides of recommended practice. Research in both these areas support the US and International Decade for Natural Disaster Reduction.

OBJECTIVES AND APPROACH

The objective of this area is to respond to Section 6005 of the ISTEA by "...accelerating testing, evaluation, and implementation of technologies which are designed to improve the durability, efficiency, environmental impact, productivity, and safety of highway, transit, and intermodal transportation systems." with particular emphasis on the repair, rehabilitation, and restoration of existing structures and the construction of new structures for the highway system.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

An ambitious $6,000,000 program in timber bridge research and technology transfer has been initiated on several fronts as identified in the ISTEA. A number of studies have been completed on use of structural adhesives in steel-to-steel bonded connections. The performance of fiber-reinforced polymer (FRP) composite materials used as structural elements in bridges and bridge decks have been studied. Trial experiments using FRP reinforcing bars in concrete bridge decks and as anchorages for FRP prestressing tendons are very encouraging; they may be used to combat corrosion and provide sufficient structural strength.

Earthquake design criteria developed by FHWA have been officially adopted by AASHTO as part of the standard specifications for bridge design. The Temporary Works Research Program has been completed, providing for the first time a rational guide for design and construction of falsework and formwork; guidelines and specifications for falsework also include aspects to insure safety for both workers and highway users during construction. Four documents, the Guide Standard Specification, Guide Design Specifications, Certification Program, and a Construction Handbook will be distributed as FHWA Technical Advisories to the State DOTs. A synthesis of current practice relating to forming, falsework and scaffolding was also developed under this program. It has proved to be a valuable aid to construction engineers.

Portable scour inspection and measurement equipment has been developed for use by field crews during floods to determine the threat of bridge collapse due to scour. Studies in the TFHRC Hydraulics Laboratory have developed criteria for sizing rock riprap for protection of piers and abutments located on the flood plain away from the stream channel. The National Flood Frequency microcomputer program provides procedures for estimating flood discharge rates up to the 500 year flood at any location in the country; the Q500 flood estimate is an important working value when conducting scour evaluations at bridges. The 1992 enhanced version of HYDRAIN, integrated highway drainage design programs, was updated to include multiple culvert designs, minor hydraulic energy losses in storm drain design, and improved hydrograph procedures.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Interim earthquake retrofit guidance will be developed, including an evaluation procedure for identifying appropriate bridge seismic retrofit technology. Criteria for acceptable performance of seismic retrofit measures for structures will also be available. The timber bridge research at West Virginia will be completed and will have produced safer timber bridge rails, design procedures for stressed-laminated timber bridges, and booklets covering design and corrosion protection for timber bridges. A series of studies to investigate the structural behavior of modular FRP panels and grid- and grating-type FRP concrete reinforcing used as bridge decks will be completed. The studies will establish the ultimate strength, stiffness, and dynamic response of the decks. A modular FRP deck study will provide data on fatigue performance, deck-to-girder and panel-to-panel connections, and develop a wearing surface for the top of the deck that is both durable and able to supply proper traction for vehicles.

A strategy for dealing with the risk of not knowing the types and depths of bridge foundations (because of the lack of plans), and consequent scour vulnerability, will be developed. An enhanced version of the two-dimensional river flow model FESWMS-2DH will provide a powerful tool for computing flow distribution and local velocities at bridge openings for estimating scour and backwater conditions. A data base of field scour measurements will be compiled from studies being sponsored by FHWA and about 21 State highway agencies involved in scour measurements. The prototype for a portable robotic device that will measure scour and stream cross-section at the bridge from the deck will be operational. Procedures will be developed for post-flood, forensic evaluation of refilled scour holes using ground penetrating radar and continuous recording seismic devices. Results of tests conducted in the hydraulics lab on the hydraulic performance of large span and special shapes of culvert inlets will be included in HYDRAIN computer algorithms and engineering circulares.

PLANNED ACCOMPLISHMENTS FOR FY 1995

A study to investigate the behavior of "jointless bridges" will result in procedures for retrofitting jointed bridges to eliminate the troublesome deck joints on existing bridges. The first guidelines for design and construction of jointless bridges will be produced. Improved design and construction procedures for buried circular pipes and backfill envelopes will be developed. These studies will apply rational analysis to what are currently empirical design methods. Structural tests, using both laboratory and field-test sites, will be conducted on the long-term performance of FRP prestressing tendons and anchorages as well as on a wide-panel, all-FRP modular bridge deck.

Methods will be developed to evaluate the transportation network fragility and the capacity of components to carry earthquake loads. The ductility demands and design requirements for bridge piers and columns in the less seismically active parts of the US will be developed, enabling bridges in those areas to be more economically designed. (At present, most of this work is oriented towards the west coast conditions.)

TFHRC hydraulics laboratory studies will determine the effect of different pile-cap levels and pile/pier configurations on local scour at pile-supported piers. Design criteria for alternatives to riprap for scour protection will be developed (bagged grout, grout-filled mattresses, precast blocks and poly-pods, cable-tied blocks). Rational procedures will be developed to account for the effects of streambed material gradation and cohesion in bridge scour predictions. Procedures and equipment will be available and in use for determining the status of unknown foundations (number and length of piles or depth of the pile, pile cap, and spread footing) where the plans are not available. An enhanced version of BRI-STARS will be released for use in predicting the backwater and local scour effects at bridges on alluvial rivers with mobile bed and banks.

b. System Management to Increase Service Life

BACKGROUND

Performance and service life of structures will be studied, followed by the development of modules for incorporation into bridge management systems. These bridge management systems will ultimately be integrated with pavement and other infrastructure management systems to provide a total highway management system.

Initially, technologies will be developed to perform quantitative measurement of critical bridge elements, such as decks and girders, for bridge inspection and measurement of deterioration processes. Accurate measurement, over time, is needed to develop the deterioration models which are an integral part of bridge management systems. These technologies will provide quantitative inputs to bridge management systems which will then evaluate and recommend optimum strategies to provide extended service life for critical structures. The initial effort will develop basic nondestructive evaluation (NDE) equipment which can be used for bridge inspection and condition assessment. Results from the new HPA on NDE are expected to improve the reliability and speed the use of local NDE. NDE will be used for quality control, identifying defects needing repair, and detecting other hazardous conditions in structures. This type of information is required to manage the Nation's bridge inventory.

OBJECTIVES AND APPROACH

Bridge management systems are now recognized as being necessary to properly manage an inventory of bridges given the recurring problems of resources and expanding needs. A critical requirement of management systems in general, and bridge management systems in particular, is the need to accurately measure the current condition and to predict the future condition of highway structures and their individual components. The objectives of this research area are to develop technologies and methodologies which will meet these requirements. The approach will be to identify specific areas where the benefits of quantifiable condition evaluation are the greatest and to target those areas for development. Existing nondestructive evaluation methods and prior research will be fully utilized to hold down costs and reduce risks but further evaluation and research into improved technologies may be needed. The unique requirements of bridge inspection will be identified and these technologies will be integrated into systems specifically designed to meet the needs of bridge management systems. Improved deterioration models and improved decision support systems for maintenance, rehabilitation, repair and replacement of highway bridges will be developed.

ACCOMPLISHMENTS TO DATE (FY 1993)

Research prototypes of magnetic field disturbance and acoustic emission technologies have been developed for bridge applications. A national NDE conference and workshop was convened to identify specific needs and technologies for bridge inspection, the results of which will direct future research in the NDE area. A comprehensive 3-year, $1,000,000 research program has been initiated at the Constructed Facilities Center, West Virginia University to develop improved stress measurement transducers, develop a fatigue loading indicator and to develop improved automated decision support systems for bridge management. The New Mexico Alliance for Transportation Research has been authorized $400,000 for to evaluate several sophisticated nondestructive evaluation technologies as Phase II of a larger three phase $1,600,000 study on the I-40 bridge in Albuquerque, New Mexico.

PLANNED ACCOMPLISHMENTS FOR FY 1994

A small scale evaluation of Dual-Band Infrared Thermography will be conducted by Lawrence Livermore National Laboratory (LLNL). This technique, pioneered at LLNL, holds promise as an improved thermographic technique to detect defects in bridge decks. An improved method for detecting, displaying and quantifying delaminations in asphalt overlaid bridge decks will be researched. The current methods are too time consuming, provide incomplete coverage and are difficult to interpret to allow integration with bridge management systems.

PLANNED ACCOMPLISHMENTS FOR FY 1995

An improved fatigue crack detection and quantification system will be developed for steel girders. This was identified as the highest priority for steel bridge inspection at the National NDE Conference sponsored by FHWA.

NDE systems data will be used to develop predictive remaining service life factors for selected bridge components and materials. This will include practical inspection tools for timber and prestressed concrete members.

c. Commercial Vehicles

BACKGROUND

Designs for 21st Century bridges will be able to accommodate heavier loads, to provide more cost-effective transportation of highway freight and to reduce load-induced deterioration. Development of the design concepts and procedures that will produce new bridges able to accommodate the increasing highway loads, last 100 years or more, and alleviate many of the current problems that afflict existing bridges will be pursued. New high performance steel and concrete materials and new classes of materials such as structural composites and adhesives will encourage the development of new structural systems. These materials will lead to the broader use of innovative structural elements and the development of entirely new types of structures to accommodate the greater demands of future traffic. At the same time, it is essential to identify and develop analytical and strengthening technologies to permit existing structures to safely carry the heavier trucks on the highway.

OBJECTIVES AND APPROACH

An adequate level of structural safety for heavier traffic loads on highway bridges is essential. The objectives of this research are to ensure structural and operational safety, minimize structural failure and eliminate sudden collapse, enhance the structural performance to prolong service life, and develop design technology to increase the load capacity of future bridges. Studies will be conducted to accurately evaluate the factor of safety against failure of existing structures; develop details and techniques which will lead to more cost-effective extension of bridge life without compromising safety; develop new bridge types and design methods to take advantage of the new high performance materials as well as composites and adhesives; and develop new criteria for bridge design to accommodate heavier loads.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

A multi-year analytical and experimental bridge study in the TFHRC Structures Laboratory was completed to show the feasibility of using a modified, inelastic design method (auto-stress) for steel bridges. The method should reduce steel weight by 10% and fabrication costs as well; if adopted, it could save $60 million annually per estimates of the industry group that co-funded the research. The elimination of fatigue-prone details will be another important benefit.

The National Cooperative Highway Research Program (NCHRP) project for development of a Load and Resistance Factor Design (LRFD) based bridge specification produced a final draft in 1992. This specification will permit more efficient design of highway bridges without unduly restricting commercial truck weights. Bridge Weigh-in-Motion (WIM) systems developed by earlier FHWA research were used in an FHWA study to measure truck loads and bridge response on 30 bridges. This data was used to calibrate load models in the NCHRP study.

Two very important research studies began in FY 1992. One is a major experimental and analytical study of curved steel bridge design. Using pooled-States Planning and Research (SPR) and administrative contract funds, this study will interface with two NCHRP projects to ultimately produce a state-of-the-art and user-friendly AASHTO guide specification for the design of curved steel bridges. The experimental part of this study will be conducted at TFHRC. The second study seeks to identify a completely new approach to bridge design and construction using high-performance steels.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Test data from a major TFHRC structures laboratory study on variable amplitude loading effects on steel beams will be used to evaluate the adequacy of assumptions made in the AASHTO Bridge Specifications for fatigue design. Another major TFHRC laboratory study is addressing the bond of prestressing strand to concrete. It will produce valuable data for validating the AASHTO Specifications' for predicting development and transfer lengths of prestressing strand in prestressed concrete girders. Both studies will also consider the effects of heavier loads of bridges.

The first data resulting from Curved Steel Bridge Design was given to NCHRP to permit that project to produce and interim design specification. (The final specification will be available in 1998.) The experimental phase of the Curved Steel Bridge study will commence with component experimentation in the TFHRC Structures Laboratory. Completion of a timber bridge study will yield valuable data on stressed-laminated timber bridges and crash resistance of timber bridge rails. Further experimentation on the issue of bond of prestressing strand to concrete will include the use of high strength concrete. Preliminary designs for the construction of a 435 ft cable-stayed bridge using fiber reinforced plastics in all major structural members will be developed.

PLANNED ACCOMPLISHMENTS FOR FY 1995

A new research area on Bridge Design and Durability will be initiated as resources become available to identify methods and criteria which enables control of cracking and results in more durable concrete structures. Verification of inelastic bridge behavior and the proposed LRFD specifications will be initiated as will the automation of the criteria to provide for more effective design of bridges. Improved guidelines for fabricating and erecting curved steel beams will become available as an interim report.

An analytical method will be developed for structural designers, adapted from the methods currently used in mechanical and aerospace engineering, to more accurately model the performance of modular FRP bridge decks. The outcome of this study will be a rapid, accurate method for designing complex structural shapes (such as the X-truss bridge deck).

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
5. Environment Research	$4,080	$5,760	+$1,680

BACKGROUND

In accordance with the Department of Transportation's (DOT's) Strategic Plan and the Federal Highway Administration's (FHWA's) Environmental Policy Statement (EPS), the environment research program will contribute to a more efficient environmental and project development program and to an enhanced environment through the development of 1) improved tools for assessing highway impacts on air quality, wetlands, hazardous waste sites, water quality, etc.; 2) more effective and innovative avoidance, detection, mitigation, and enhancement techniques; and 3) environmental expertise within FHWA and State transportation agencies. The Strategic Plan and EPS also call for expanded efforts to assure the effective implementation of the Clean Air Act Amendments (CAAA) of 1990.

The full authorization level of $6,525,000 is needed to adequately address existing environmental compliance and enhancement issues and to interpret and comply with changed legislative and regulatory requirements expected under the of the Clean Water Act, the Resource Conservation and Recovery Act, the Endangered Species Act, and the Comprehensive Environmental Response, Compensation and Liability Act (Superfund), all of which are scheduled for reauthorization by 1995.

OBJECTIVES AND APPROACH

Research efforts in FY 1995 reflect our long range research program, incorporate the results of the 1991 National Transportation Research Needs Conference, and will target the following critical areas: Air Quality, Wetlands, Water Quality, Hazardous Waste, and Technology and its Application.

The five broad research areas in the FY 1995 Program are detailed below:

1) Air Quality

The CAAA has placed increased emphasis on demonstrating that Federally supported highway and transit plans, programs, projects, and other decisions will not create or exacerbate air quality problems in areas which are nonattainment for transportation related air pollutants. The promulgation by EPA of the final rule on transportation conformity has made the need for providing technical assistance to the states, MPOs, and local governments even more imperative. The environment research program will improve the techniques available for cost effective analysis of transportation system operation and transportation project proposals to assure attainment and maintenance of the National Ambient Air Quality Standards. Ongoing research includes improving the integration of transportation and air quality planning, assessing highway particulate impacts, evaluating models and procedures for predicting carbon monoxide concentration at signalized intersections, and assessing transportation emission trends and violations of the National Ambient Air

Quality Standards. Proposed research will focus on quantifying the air pollution reduction potential of transportation control measures, assessing emissions from heavy duty vehicles, and evaluating near highway dispersion mechanics for air pollutants.

2) Wetlands

Wetlands can provide valuable habitat areas for many diverse species, improve the quality of water, protect shorelines from erosion, contribute to groundwater recharge, and help maintain baseflow through groundwater discharge. Executive Order 11990 and Section 404 of the Clean Water Act call for protection of wetlands in Federal projects. In 1987/88, concern over continuing wetland losses caused the President to call for a national goal of "no-net-loss" of wetlands and new wetland policies to be developed by the Domestic Policy Council (DPC). That goal has been endorsed by the current administration as well. Ongoing research includes refining and regionalizing application of wetland evaluation techniques (WET 2.0), evaluating methods of wetland creation (including the overall effectiveness of these efforts) jointly with the Corps of Engineers, and evaluating methods of wetland creation (including the cost of these efforts) jointly with the Environmental Protection Agency. Proposed research will focus on determining better mechanisms to identify hydric soil and to reduce delays in wetland identification and evaluation.

3) Water Quality

The planning for and implementation of highway systems can interact with the nation's water resources in numerous ways. Since most highway sections lie within or cross a watershed, all phases of project development have the potential for impacting both surface and underground water resources. Highway project planning, location, and design activities can greatly influence future uses of water resources in localities by determining patterns of growth, secondary development, and water supply distribution. Construction and maintenance activities can have direct impacts to both supply and water quality characteristics of the project area. A variety of impacts are possible, ranging from the erosion of disturbed soils to the chemical pollutants associated with highway maintenance practices. Reauthorization of the Clean Water Act, due in 1993 or 1994, is expected to strengthen controls on stormwater runoff and other nonpoint sources of water pollution, and will require greater FHWA technical assistance to the field and state DOTs to interpret new legislative requirements and regulations and to develop compliance strategies. Ongoing research includes synthesizing state of the art water quality research, evaluating water quality monitoring equipment, evaluating best management practices, and updating baseline water quality data. Proposed research includes determining immediate and cumulative impacts of highway runoff on receiving waters.

3) **Hazardous Waste**

Ongoing research consists of determining methods and equipment to identify, investigate, control, treat, and dispose of ROW hazardous substances, materials, and wastes. Proposed research will describe the uses of hazardous materials and generation of hazardous wastes by SHAs during project development, construction, and maintenance/operations, and determine the most cost effective methods for their reduction, documentation, handling, control, treatment, and disposal.

4) **Technology and its Application**

Ongoing research includes evaluating innovative environmental protection, mitigation, and enhancement strategies; reducing abatement costs by improving highway traffic noise prediction procedures; reevaluating the constituents of highway runoff; developing expert system for environmental process; and evaluating the effects of highway runoff on groundwater and potable water. Proposed research will focus on evaluating the effects of vegetation and atmospheric variables on noise reduction; evaluating techniques and methodologies to rehabilitate historic bridges on low volume facilities; incorporating Geographic Information System technology in assessing environmental impacts; and incorporating Global Positioning System with field data collection.

Research efforts will be coordinated with scientific and environmental experts from related resource agencies, academia, and private industry as well as from AASHTO and pertinent TRB committees to make proposed work more responsive to environmental needs. Efforts will be made so environmental concerns can be addressed efficiently as an integral part of highway planning, design, operation, and maintenance.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
6. **Right of Way Research**	$320	$442	+$122

BACKGROUND

The right-of-way research program was formalized in 1989 with the establishment of a new Research Advisory Council, representing the Offices of Right-of-Way, Environment and Planning, and Policy. The right-of-way research program is designed to advance and reflect the National Transportation Policy and reauthorization legislation (ISTEA) by contributing to a more efficient administration of right-of-way technical innovation and its application at both management and operational levels.

OBJECTIVES AND APPROACH

To enhance State and local government highway agency capabilities in right-of-way program management, technical development and information sharing.

The research effort includes studies that identify and advance right-of-way management methodology; right-of-way technical innovation; and land use control applications.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Our initial research contract on Corridor Preservation is in the final report stage, after additional analysis was performed. This contract was scheduled for completion in 1992, and will be distributed to appropriate State and Federal offices in FY 1994 after considerable coordination. Our follow-up contract on Corridor Preservation - Legal and Institutional Barriers is in final preparation stages, and reports will be distributed to appropriate State and Federal offices in the first part of FY 1994. A third contract on Effects of Contamination on Market Value of Real Estate was distributed in FY 1993.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Right-of-way research contract 64-10-4007 is in the contracts process for FY 1994 to continue corridor preservation research in land-banking; explore non-exclusive uses of rights-of-way; promote effective right-of-way program management techniques; and expand knowledge of major legal, appraisal and acquisition issues affecting right-of-way programs. Under an umbrella research contract concept, issues will be researched as needs arise and funds are available.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Planned right-of-way research in FY 1995 includes completion and dissemination of research studies in Corridor Preservation and subsequent efforts. Additional issue areas for research will be based upon need, and obtained from the umbrella contract, particularly in technology transfer of "best practices" applications developed in past right-of-way research efforts. Additional areas may include ISTEA Enhancement provisions as they impact right-of-way program areas.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
7. **Policy Research**	$6,869	$7,481	+$612

BACKGROUND

The Policy research program provides data, analytical tools, and research to enhance the Federal Highway Administration's ability to evaluate a broad range of program and policy options. In 1995 policy research will address many of the short and long term Federal highway policy issues raised in the Intermodal Surface Transportation Efficiency Act (ISTEA) and will provide analytical tools and data needed to analyze highway program alternatives for the 21st century. Such critical highway policy issues as alternative highway financing strategies, implications of emerging public/private partnerships for highway construction and operation, implications of alternative fuels and other energy and environmental initiatives, the contribution of the highway program to economic productivity and international competitiveness, employment impacts of highway construction, and the impacts of highway network alternatives will also be addressed. Research to update relationships between highway and traffic characteristics and user costs is needed as well as the development of procedures to analyze alternative multimodal investment strategies using appropriate evaluation criteria for each mode. Research on highway investment requirements, highway system condition and performance, highway cost allocation, and truck size and weight policy will continue.

OBJECTIVES AND APPROACH

The objectives of the policy research program are to develop a coordinated program of research to evaluate the appropriate level of future Federal involvement in the highway program, to maximize the return on funds invested in the Federal-aid highway program, and to provide the information needed to evaluate policy alternatives. Policy research is essential for the development of Federal highway policies that are responsive to Federal interests in promoting interstate commerce and improving the competitiveness of domestic products in international markets. The ISTEA creates many opportunities for State and local highway agencies to apply Federal-aid highway funds and funds from the private sector to meet their most pressing highway improvement needs. Research is needed to evaluate impacts of the increased flexibility and new opportunities for private sector involvement in highway projects. Work will also focus on data needs to support the various management systems called for in the ISTEA. Research will update essential data and analytical tools required to evaluate such controversial issues as truck size and weight policy and the equitable allocation of highway costs. The Highway Performance Monitoring System data base and analytical models will be expanded and improved through the policy research program including needed improvements in relationships between develop multimodal investment strategies. Other research will include the development of more detailed truck data for improved program management, better information on truck weights and dimensions, and more detailed information on truck movements and preferred routings.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Recent accomplishments of the policy research program include development of a modeling system to provide an improved economic foundation for estimating highway investment requirements; analyses of impacts of truck size and weight and user fee policy options; development of improved methods for analyzing economic impacts of highway investment; refinement of methods used to estimate future highway user revenues accruing to the Highway Trust Fund; development and enhancement of systems to facilitate the retrieval and analysis of highway-related data; support for development of the census transportation planning package and the Nationwide Personal Transportation Study (NPTS); development of improved models to analyze highway cost allocation issues; and refined analysis of intermodal trucking issues. In the information management areas, research has helped to ensure the availability of efficient procedures for electronic dissemination of highway characteristics data, the ready accessibility of reliable highway information data bases, the development of advanced traffic data collection and interpretation technologies, improved congestion measurements, and computerized procedures for effective analyses of these data bases.

PLANNED ACCOMPLISHMENTS FOR FY 1994

The ISTEA includes many provisions that require both continuation of existing research programs and initiation of new research. Further, research needed to support policy development for the next legislative cycle must begin now if it is to provide substantive input. Specific policy research that is needed to support provisions of the ISTEA include: analysis of various public/private financing options that are emphasized in the ISTEA; analysis of the connectivity and circuity associated with NHS network; analysis of cost allocation implications of the new program structure; and policy analysis of congestion pricing issues and approaches.

Policy research in FY 1994 will focus on the following specific areas: (1) improving tools for highway cost allocation and truck size and weight policy analysis, (2) interrelationships between highway investment and economic productivity, (3) improving policy analyses of emerging energy, environmental, and highway revenue issues, (4) highway investment and user cost relationships, (5) national highway network development and evaluation, (6) improving the management and dissemination of national and international data on fuels, highway investment, driver registration, and highway condition, performance, and usage; (7) Highway Performance Monitoring System data base operations; (8) improving personal and commercial travel monitoring; (9) improving the tracking of gasoline usage; (10) ISTEA monitoring system support through integration of traffic and travel data; (11) assessing and improving the quality of traffic data collection devices; (12) analyzing data on household-based travel; and (13) developing procedures to improve the quality and precision of traffic data.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In FY 1995 policy research will include continuing work on private sector participation in highway financing; analysis of environmental and energy policies and trends as they affect the highway program and revenues; continuing work on relationships between highway system investment and private sector competitiveness; improving estimates of the highway capital stock; extrapolation of the effects of congestion on highway system productivity; improving relationships between vehicle operating costs and highway conditions and performance; initial work on the development of a multimodal investment performance system; refinement of truck size and weight policy models to prepare for new data from the upcoming Commodity Flow Survey; continuing analysis of household travel characteristics and conduct the 1995 National Personal Transportation Survey; improvements in travel monitoring procedures; extension of HPMS procedures in a microcomputer environment; demonstration of non-traditional traffic data collection methods and systems; enhancing vehicle classification on the National Highway System; continued integration of FHWA highway statistics with the AASHTO Value Added Network; conducting surveys to assess travel impacts of implementation of clean air and congestion mitigation actions; assessing the use of Interstate Fuel Tax Agreement data for interstate carrier fuel use data, and improvements in monitoring congestion in urban areas.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
8. Planning Research	$4,369	$5,264	+$895

BACKGROUND

Very significant demands have been placed on the Planning Research budget by the passage of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Clean Air Act Amendments (CAAA) of 1990.The ISTEA mandates Statewide Planning and requires this planning to address new requirements such as energy conservation, intermodal access and metropolitan area connectivity. Previously states were not required to meet these requirements. The ISTEA also mandates that states develop congestion management systems to help integrate data on condition and performance with capital and operational expenditure.

Due to both the ISTEA and the CAAA, the planning process must address, both at the statewide and metropolitan levels, the complex processes of land use and transportation interaction, travel and environmental impacts of transportation decisions; impacts of transportation demand management and control strategies; the analysis of multi-modal and intermodal alternatives, etc.

The full authorization level of $5 million is needed to fully and adequately address these issues, and to provide support to States and MPOs with the capability of addressing these issues. While this may appear to be a very large increase in the research program, the new requirements placed on the program by the ISTEA and CAAA have increased the funding needs dramatically.

OBJECTIVES AND APPROACH

The goal of the Planning Research Program is to develop and disseminate improved planning methods, congestion management procedures, intermodal procedures, statewide planning methods and an improved Highway Performance Monitoring System (HPMS) to assist State and local transportation agencies.

States and MPOs look to FHWA to develop reliable and valid technical tools, including models and GIS aids, which can be used nationwide. The states will then use planning funds to collect local data, analyze local circumstances, and arrive at locally acceptable solutions using FHWA developed planning and system management tools. This complementary partnership ensures a credible, cost-effective planning process and improved transportation decision making to meet immediate and long term needs and challenges.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Transportation analysis procedures were developed to better support State and local transportation planning, highway investment analysis, and project development, intermodal, congestion management and statewide planning activities. These included:

- An analysis of the effects of urban design on demand management.
- A major study to improve Metropolitan Planning Methodology. The study focuses on improved methods to evaluate the impacts of capacity added by new construction and the effects of demand management measures on air quality. The study will providing a much better identification of the land use - transportation - air quality interactions and improved methods of forecasting these interactions. The study will run four to five years. The following projects were initiated under this study:
    - An open competition to identify alternative methods of travel forecasting, and a synthesis of these methods into an overall design for new models.
    - Initial funding to the Los Alamos National Laboratories for the TRANSIMS project to take a completely new look at forecasting methods and to begin the implementation of new methods.
    - Funding, in cooperation with EPA and private sources, to examine the potential of revised land use patterns and urban design to reduce the need for new highways.
- Began projects to develop areawide congestion measures and to develop a prototype congestion management system. This is part of the congestion management requirement in the ISTEA.
- Held workshops and provided training on intermodal planning, began intermodal feasibility studies.
- Taught courses on methods of statewide planning as required by the ISTEA, developed case studies to address the ISTEA requirements of statewide planning.
- Development of new vehicle speed computation methods and new traffic flow data bases to support the HPMS system.
- GIS related research to update the National Highway Planning Network, digitize the adjusted Federal Aid Urban Boundaries, and incorporate the States' Linear Referencing System.

PLANNED ACCOMPLISHMENTS FOR FY 1994

1) **Metropolitan Planning Methodology** - This multi year study will continue, including: a meeting of a review panel to insure that the study addresses local needs and advances the state of the art, continuation of the Los Alamos National Labs TRANSIMS project, a major study of equilibrium issues in the travel forecasting process, the development of trip generation models which are sensitive to congestion and a major outreach effort to disseminate the results to date. This effort will develop a better understanding of the interrelationships of land use, transportation and air quality.

2) **Statewide Transportation Planning** - Technical support to implement the statewide planning requirements of the ISTEA. Guidance, technical assistance and training will be provided to State Highway agencies. Development of short term and long term best practices in statewide planning.

3) **Congestion Management** - Follow-up the congestion management state-of-the practice synthesis project to develop specific case studies from model Congestion Management Systems (CMS). Examine GIS applications for management systems and work with State and local agencies to secure data sets for demonstrating potential CMS applications. Examine and define the linkages between CMS, the planning processes, and other management systems. Develop a congestion video. Hold a series of seminars to provide a forum for MPO's, transit providers, and States to share experiences with congestion management. Sponsor a national conference on congestion and intermodal management.

4) **Intermodal Planning** - Continue studies to determine the effectiveness of intermodal transfer facilities, prepare case studies to examine the effectiveness of individual facilities. In coordination with the Federal Aviation Administration, develop an Airport Access Planning Guide.

5) **Highway Performance Monitoring System** - Research under this area includes development of congestion measures for the Highway Performance Monitoring System (HPMS); identification and analysis of highway system bottlenecks including basic research into their operational characteristics; implementing HPMS capabilities within Geographic Information Systems (GIS); development of economic based forecasts for total truck ADT and truck weight; upgrading HPMS analytical tools to respond to air quality, urban growth, network expansion, traffic diversion, peak hour

spreading, vehicle operating cost, national traffic forecasts and other policy issues; integrating the HPMS data base with the National Highway Planning Network; development of procedures to provide seasonally adjusted route specific truck volumes for the States' pavement management systems.

PLANNED ACCOMPLISHMENTS FOR FY 1995

The FY 1995 research program will target the following areas:

1) **Metropolitan Planning Methodology** - In 1995 this multi-year study will continue. During this year there will be expenditures on data collection, including behavioral data and land use data. Initial testing of the new procedures will also begin. There will also be continued development of the TRANSIMS project and preliminary field testing of new techniques. These projects will provide, as a byproduct, a better understanding of the land use/urban development/transportation interface.

2) **Statewide Transportation Planning** - Identify good planning practices and procedures, support conferences, further develop training packages, and develop process and procedural manuals. These efforts will support and promote effective statewide planning as required by the ISTEA. Air quality and intermodal issues will be addressed. Efforts will address policy issues, analytical techniques and administrative procedures necessary to perform planning effectively.

3) **Congestion Management** - Using what was learned from the areawide congestion measures and prototype management systems projects, develop intermediate analysis methods to facilitate bridging the existing gaps between macroscopic travel demand models and microscopic traffic operations models. Develop and promote CMS prototypes which use GIS representations. Continue to develop training and provide outreach through conferences and workshops.

4) **Intermodal Planning** - Further develop measures of intermodal effectiveness and intermodal performance measures, measures will include both freight and passenger, evaluate effectiveness of intermodal transportation in international competition.

5) **Highway Performance Monitoring System** - Continue to improve the HPMS analytical process and the development and implementation of GIS tools.

NEED FOR RESEARCH

The following documents the need for the research projects described above:

1) **Metropolitan Planning Methodology** - The CAAA placed the burden of improving air quality on mobile sources (automobiles primarily). It requires that areas which have not attained air quality standards implement measures to reduce automobile travel. In support of this, it is essential to determine what the impact of new transportation infrastructure and of demand management initiatives will be on travel behavior, and to be able to forecast this impact. Further, a lawsuit halted the portions of the Transportation program in the San Francisco area for approximately one year. The basis of the lawsuit was that existing travel models were not adequate to forecast the effects of new infrastructure on travel.

   The research will focus on both short term projects to meet immediate requirements and longer term efforts to provide better understanding of travel and the travel forecasting process.

2) **Statewide Transportation Planning** - The ISTEA requires all states to set up statewide planning procedures. Research is essential to determine proper analytical procedures for states to use as well as administrative procedures to insure that the planning can be done in an effective environment.

3) **Congestion Management** - The ISTEA requires all states and metropolitan areas over 200,000 in population to establish congestion management systems. Research in congestion management is essential to define methods of measuring and monitoring congestion, provide analytical techniques to define and evaluate congestion management measures, and to provide for methods to evaluate congestion management strategies.

4) **Intermodal Planning** - The ISTEA requires that each state implement a statewide intermodal planning process. Government agencies are required to give more attention to intermodal coordination. To support this requirement in the ISTEA, an intermodal research program is essential. The program will cover case studies of intermodal cooperation and effectiveness, methods of analyzing and forecasting intermodal efficiency, and institutional arrangement making for effective intermodal coordination. The results of this research will be used by the Federal, state and local governments in intermodal planning procedures.

5) **Highway Performance Monitoring System** - Recent advances in analytical methodologies and computer technology offer tremendous opportunity to improve the way in which transportation planning activities are conducted at both the urban and statewide level. Applications research to take advantage of this advancing technology and to develop implementation strategies is critical to improving the support of the transportation planning process at the Federal, State and local levels. Research will focus on areas such as improved data collection procedures, improved analytical methods, developing and applying GIS, integrated highway information, and other systems to better satisfy the information needs of highway organizations.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
9. Motor Carrier Research	$5,345	$8,804	+$3,459

BACKGROUND

FHWA's motor carrier research program was developed in response to the need for an expanded, coordinated and comprehensive commercial vehicle research effort to ensure the safe operation of commercial motor vehicles on the Nation's highways. The program relies heavily on interaction with, and suggestions from, the motor carrier industry, associations, the Congress, all parts of the FHWA, Office of Motor Carrier (OMC) headquarters and field offices, and other modal administrations within the Department of Transportation to ensure that proposed research is unique, relevant and timely. The projects chosen for the program represent only the highest priorities identified through coordination with these groups.

OBJECTIVES AND APPROACH

The objectives and approach of the program are reflected in the FHWA's 5-Year Motor Carrier Research and Development Plan submitted to Congress in 1993. The primary mission of the motor carrier program is to improve safety. While the number of motor carrier accidents and fatalities has fallen in the past decade, the level is still unacceptably high.

The motor carrier research program encompasses a comprehensive program aimed at reducing deaths and injuries involving commercial motor vehicles. It addresses driver performance by examining: knowledge about the physical and mental demands placed on commercial drivers; medical qualification requirements and procedures; and driver training and education. Also, the program supports: accident data collection and analysis; hazardous material cargo movements; compliance and enforcement strategies; and regulatory guidelines. In addition, research focuses on improving the industry's operations by streamlining reporting and recordkeeping requirements.

The 5-Year research plan is defined by nine major objectives:

- Continue to enhance safety by reducing the number of motor carrier accidents, fatalities, and hazardous materials incidents.
- Achieve greater participation from the States in motor carrier compliance and enforcement activities, while increasing their operational efficiency.
- Ensure that the current high level of motor carrier productivity is maintained at lower cost.

- Lower the motor carrier industry's operations costs through more selective and efficient inspections, and by simplifying State registration, taxation and hazardous materials regulations.
- Ensure the medical fitness of all drivers and allow the physically challenged, who have been evaluated and proven to be safe drivers, to become productive members of the motor carrier industry.
- Ensure that Federal and State motor carrier regulations are less burdensome, more uniform, and justified through comprehensive cost-benefit analysis.
- Provide Congress, the States, and the motor carrier industry with well-defined and supported research and development programs and priorities.
- Foster a partnership in research and development with other Federal and State organizations, the motor carrier industry, and the public.
- Rapidly incorporate advanced technologies and clean air initiatives into the mainstream of motor carrier operations, their Federal agencies, the motor carrier industry, and the public domain.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Some of the highlights and planned accomplishments of the $5.345 million FY 1994 research program include:

- Obtaining scientific data on the commercial driver's ability to remain alert in a variety of driving situations.
- Evaluating critical driver medical requirements for change in light of recent medical findings.
- Evaluating and disseminating information on new, innovative technologies for evaluating driver fitness-for-duty and safely stopping commercial vehicles.
- Improving enforcement of carrier compliance with vehicle weight provisions.

FY 1995 RESEARCH PROGRAM

The FHWA motor carrier research program proposed for FY 1995 totals $8.804 million. This program is designed to accomplish the objectives outlined in the 5 year research plan submitted to Congress. The majority of the $8.804 million program will sustain the level of continuing research initiated in FY 1994 or before.

As in FY 1994, the motor carrier research program consists of seven distinct categories. The following discussion provides a description, estimated funding levels, and justification for each category.

I. COMMERCIAL DRIVER PROFICIENCY $2,075,000

Reducing accidents remains the most important motor carrier research area. To improve driver safety, the driver proficiency category is researching human factor issues such as: fatigue and alertness; medical qualifications; reliance on controlled substances; driver knowledge, skills and testing; and driver proficiency. New testing methodologies and technologies, the latest medical knowledge, and innovative and economical training methods will be evaluated and, as appropriate, promoted to assure that vehicle operators drivers are better qualified and drive safer.

Driver Fatigue

During the past several years, the FHWA has collected and analyzed baseline data on driver alertness and performance in representative motor carrier operations. During FY 1995, research will continue to examine the special fatigue and stress factors associated with longer combination vehicle (LCV) operations, as well as impact of the loading and unloading on driver alertness. Research on commercial driver rest and recovery needs will enter its final year of work. The results of cooperative research with the American Trucking Associations (ATA) on fitness-for-duty testing and older commercial driver performance needs also will be concluding.

The expected results of driver fatigue research include:

- Scientific determination of the cost and practicality of various hours-of-service scenarios for motor carriers and operators.

- Revised hours-of-service regulations.

- Identification of effective technologies to determine driver fitness to operate a commercial vehicle.

- A determination of the needs of older commercial drivers, with recommendations for action to be taken (e.g., administrative, educational, technological) to assure safe operation of commercial vehicles.

Medical Qualifications

Assuring all commercial motor vehicle operators are medically qualified is also an important means to towards improving motor carrier safety. FHWA regulations standards must reflect medical advances and ensure drivers are properly and uniformly examined for medical problems. The latest technologies must be applied to detect impairment caused by alcohol and controlled substance abuse.

In FY 1995, the results of the first phase of research on the problem of sleep apnea among commercial drivers will be concluded. Major work on interstate commercial waivers for diabetic, epileptic, and hearing and vision-handicapped drivers will continue. Also continuing will be the project supporting the Motor Carrier medical advisory board. New research will begin to implement successfully piloted, State-based programs to medically certify commercial motor vehicle operators.

The anticipated results of this research will enable the FHWA to:

- Help drivers identify their sleep problems and deal effectively with them to sustain their driving performance.
- Generate medical regulations that more accurately reflect the task requirements of drivers and apply the most up-to-date information on certain medical conditions.
- State assumption of medical certifications, and the ability to perform them in a uniform manner, as part of the commercial driver's licensing and certification process.
- Update medical standards to assess driver qualifications.

Driver Training

Driver performance can be improved through better training and technology. In FY 1995, a long-awaited assessment of the effectiveness and benefit of implementing the Commercial Driver's License program will begin. Motor carrier research will begin to assess the feasibility of simulator usage for driver training, testing and licensing.

The expected results of driver training research include:

- Assessment of various simulator technologies for testing, training and/or licensing commercial driver performance and impairment.
- More effectively trained drivers, using more efficient and effective training techniques and improved technologies.

Motor Coach Drivers

FHWA will begin assessing the competency standards needed to determine motor coach driver proficiency. FHWA will also commence research to develop a preventative maintenance model for buses.

This research will result in performance criteria that bus companies may use to effectively judge the competency of their drivers and ensure better trained motor coach drivers. It also will lead to recommended motor coach maintenance practices and procedures.

II. COMMERCIAL VEHICLES SAFETY AND PERFORMANCE $1,000,000

Research will support new improvements and procedures to ensure the safe operation of all commercial vehicles and their respective vehicle systems. Cooperative research will be nearing completion with the ATA on heavy truck brake system needs. Cooperative research on cargo securement standards with Ontario will continue.

In FY 1995, the OMC will undertake new research aimed at ensuring tractor-trailer brake system compatibility by improving inspectors' knowledge and the technologies to detect compatibility problems. Cooperative research with NHTSA will begin to assess the performance of new brake systems technologies, drawing on that currently being performed by the Sandia National Laboratory. Research on maintenance and inspection procedures for alternatively fuel vehicles will begin.

The expected results from this vehicle research include:

- Determination of the significant problems associated with, and needed improvements to, brake system maintenance and training, and adherence to standard.
- Inspection procedures for assuring compatible truck-trailer braking systems.
- Effective maintenance and inspection standards for alternatively fueled vehicles to ensure their safe fueling and operation.
- Determination of innovative, more effective brake system technologies.
- Improved cargo securement standards.

III. MOTOR VEHICLE SAFETY ANALYSIS AND INFORMATION $2,327,000

Included in FHWA's research goals are the improvement of the efficiency of Federal motor carrier information systems, so that they may contribute to increased motor carrier compliance and safety. Research is aimed at improving the Motor Carrier Management Information System (MCMIS), the quality of MCMIS data, and the usefulness of the data to FHWA and the States.

Research will continue to support timely and accurate collection, analysis and dissemination of industry-related information, as well as provide technical support to field staff collecting the information. Studies will continue to identify and evaluate practical alternatives to the annual carrier census file update, automate the FHWA's regulations and interpretations systems, and enhance the SAFETYNET program. In addition, research to determine if there is a significant difference between convention and multi-trailered, longer-combination-vehicles' accident rates will continue.

Significant new research will evaluate the cost-effectiveness of on-board recorders in analyzing commercial vehicle accidents, with the goal of determining if this equipment can help enforcement officials to better pinpoint the causes of accidents.

The anticipated results from this information systems research include:

- A more accurate, efficient and responsive MCMIS, better able to target FHWA and State resources and activities to the highest risk carriers, drivers, vehicles and cargoes.
- Efficient census reporting.
- Accurate accident determinations and accident data.

IV. REGULATORY COMPLIANCE AND ENFORCEMENT $1,575,000

The FHWA will research new means and technologies to efficiently apply resources toward increasing compliance and reducing carrier reporting and recordkeeping requirements. Support for hazardous material education and technical assistance activities will continue, as will evaluating the performance of cargo tank equipment.

Beginning in FY 1995, a number of important new hazardous material studies will assess: the feasibility of establishing performance standards for auxiliary haz mat containers; the frequency and scope of haz mat substance releases; and the current haz mat information systems in the Department to determine needed improvements. Because of their possible impact on motor carrier hours-of-service compliance, commercial shippers and receivers will be evaluated for the scheduling demands they place on carriers.

In the area of vehicle inspection technologies, evaluations will begin in FY 1995 of new brake test technologies and methods to help States verify compliance with out-of-service orders.

The anticipated results of this research will include:

- Device(s) to perform on-board assessments of vehicle weight.
- Determination of shipper and receiver's role and impact on driver hours-of-service violations.

- Recommendations concerning the safe handling, packaging and accuracy of information on haz mat movements.

- Report to States on innovative brake testing technologies and innovative methods to verify out-of-service orders.

V. REGULATORY REFORM $ 500,000

In 1992 FHWA began a zero-based review of its safety regulations in order to provide effective, understandable, simple and enforceable regulations to improve highway and motor carrier safety. In FY 1995, research will continue on Phase II of the zero-base effort to establish procedures and define issues associated with creating the performance-based regulations.

The expected results of this research are performance-based standards for key motor carrier safety regulations that: focus on those areas of enforcement and compliance which are most effective in reducing motor carrier accidents; reduce motor carrier compliance costs; encourage innovation by Federal, State and industry officials; clearly and succinctly describe what is required of carriers and drivers; and facilitate enforcement by Federal and State officials.

VI. MOTOR CARRIER INDUSTRY ECONOMIC HEALTH $ 827,000

The National Transportation Policy calls for increasing the uniformity of regulations among the States and fostering intermodalism, while realizing the need for productivity improvements. Research will continue to foster uniformity in carrier registration and taxation, and evaluate technologies to facilitate carrier recordkeeping and reporting.

The anticipated results of this research include:

- Fewer vehicle stops for inspection, compliance, and verification.

- Enhanced motor carrier recordkeeping and reporting.

- More productive vehicle registration and taxation compliance procedures.

VII. ADVANCED TECHNOLOGY $500,000

Research in this category focuses on the advanced technologies relating to future highways and vehicles emanating from contemporary research activities by public and private agencies. For example, this research will evaluate and help educate the industry on selected technologies derived from IVHS activities. In FY 1995, participation will begin in the on-going development and evaluation of these emerging technologies. The anticipated result of this research will be:

- New technologies to improve motor carrier industry safety and productivity.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
B. INTELLIGENT VEHICLE HIGHWAY SYSTEMS	$90,300	$165,810	+$75,510

BACKGROUND

The goal of the national IVHS program is to provide improved safety, mobility, driver convenience, energy efficiency, and environmental quality for the highway transportation system through the development and application of advanced vehicle--highway technologies. Benefits achieved through use of IVHS technologies flow to both travellers and companies which use the transportation system.

The FHWA works closely with a wide range of participants in the national IVHS program, including other Federal agencies, State and local governments, the private sector, universities, and associations. The Intelligent Vehicle Highway Society of America, or IVHS AMERICA, was established in 1990 as a non-profit scientific and educational society to represent the diverse entities that are working together with the Department as partners to advance the national IVHS program. IVHS AMERICA is also chartered as a utilized Federal advisory committee to the U.S. DOT to help plan, promote, and coordinate the development and deployment of IVHS in the United States.

Congress has supported the development of IVHS with appropriated General Operating Expenses (GOE) funds for FHWA in FYs 1991, 1992, 1993, and 1994. In addition, the ISTEA contains the Intelligent *Vehicle Highway Systems Act of 1991* as Part B of Title VI. This Act established a contract authority program for IVHS activities of $94 million in FY 1992 and $113 million per year in FYs 1993 through 1997. The comprehensive FHWA IVHS program is designed to utilize funds from both categories to implement the provisions of the ISTEA and support advancement of IVHS program goals and objectives.

The ISTEA funds support a broad range of operational tests, the IVHS Corridors Program, early deployment studies, and other IVHS activities. The ISTEA funds also support critical, cross-cutting activities, such as the development of an open, national IVHS system architecture that is required to achieve and preserve nationwide compatibility of IVHS systems. The GOE funding support is necessary to supplement ISTEA-provided resources and will be directed primarily towards research and development projects, program support, technology transfer, and institutional issues activities.

These funds will be used to accelerate several areas of the program, including research and development and operational tests, the establishment of an IVHS commercial vehicle network, the automated highway system, and to form partnerships with the defense and space industries to accelerate the transfer of their technologies to IVHS applications. These activities are further explained in the following sections.

FY 1995 program activities will be guided by the National IVHS Program Plan now under development cooperatively with others in the public and private sectors, including IVHS AMERICA. The National IVHS Program Plan will describe the research, development, testing and support activities that need to occur to reach the point of deployment for a set of IVHS user services. It will contain a system integration plan that will describe how national compatibility will be achieved. It will contain a deployment plan that will describe what needs to occur to deploy IVHS, and progress towards deployment. It will also detail activities aimed at supporting deployment, for example, outreach and technology transfer activities. Finally, it will provide for program assessment. The Plan will show how Federal activities relate to other initiatives in the private sector and other government programs. A first working draft of the Plan was completed in October 1993.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
1. **Research & Development Program**	$28,000	$38,510	+$10,510

BACKGROUND

Research and development (R&D) efforts are an integral part of the national IVHS program, providing products which can be incorporated with existing components for IVHS operational tests. The R&D program is organized administratively by grouping user services into four categories:

- Advanced Traffic Management Systems (ATMS) address improvements in traffic surveillance, data analysis, traffic signal control, and freeway management.
- Advanced Traveller Information Systems (ATIS) provide pre-trip and in-vehicle information on routings, traffic conditions, hazards, and services.
- Commercial Vehicle Operations (CVO) addresses opportunities to reduce regulatory burden and increase safety for commercial vehicles. In recognition of the unique characteristics of this transportation segment, prototype system development has been established as a separate budget category (Category 3).
- Advanced Vehicle Control Systems (AVCS) will provide major breakthroughs in transportation safety, capacity and productivity. Although NHTSA is responsible for the early phases of AVCS, FHWA has responsibility under ISTEA for the fully deployed Automated Highway System (AHS) (see budget Category 4).

The FY 1995 program will continue valuable existing R&D projects that have already started and initiate new projects within the framework of the National IVHS Program Plan. Funding will be used to accelerate critical R&D efforts that will support earlier deployment of IVHS products and services. Purchase of these products and services by individual consumers and public agencies will help to stimulate the economy and result in earlier accrual of public benefits.

OBJECTIVES AND APPROACH

The objective of the IVHS R&D program is to develop and explore system concepts for solving surface transportation problems and meeting user needs. The R&D program examines available and emerging enabling technologies, and the potential costs and benefits of different system concepts and technologies. The latter includes evaluations of operational test projects.

The R&D portions of the IVHS program are carried out through a variety of Federal contracting procedures and interagency agreements. Innovative procedures such as consortia partnerships, broad agency announcements and agreements with Federal laboratories are used where appropriate.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Significant projects in the ATMS, ATIS, CVO, and AVCS categories were initiated in FY 1993 and prior years. ATMS highlights included development of traffic signal control strategies which dynamically adapt to changing traffic conditions and better analytic tools for fuel consumption and emissions calculations. Work was completed on development of: tools that optimize control of traffic in integrated networks of freeways and arterial streets; multi-modal transportation management strategies; and, a freeway traffic simulation model which is now being used by practitioners.

ATIS results included evaluation of PATHFINDER and data collection for the TravTek operational tests, development of first generation human factors guidelines for in-vehicle displays and controls, and development of preliminary requirements for land mobile radio navigation with emphasis on GPS. Other projects initiated included continued evaluation of human factors aspects of in-vehicle traveller information devices, development of a conceptual design for ATIS in rural and small urban areas, establishment of capabilities for examining alternative communication technologies and the electronic compatibility of in-vehicle systems, development of an identification scheme for roadway links in digital data bases for traffic and navigation systems, and development of system concepts for advanced work zone and adverse visibility warning and control systems.

CVO work included development of commercial vehicle on-board computer requirements; requirements for automated CVO licensing, permitting, and safety systems; and determination of the feasibility of commercial vehicle safety systems. Projects were initiated to develop a conceptual system addressing fleet management and information needs and to explore and recommend an AVI standard for a national IVHS commercial vehicle network.

Work under AVCS has included radar-based obstacle detection / crash avoidance testing, early work in automated control, and establishment of a capability for examining the infrastructure needs and traffic impacts of these systems.

In addition, other efforts were initiated which crosscut the IVHS user services. These included: initiation of a capability to provide support to either or both DOT and operational test partners in the formal evaluation of operational tests; and a program, administered by the Transportation Research Board, to provide grants for development of innovative IVHS concepts (IVHS IDEAS).

PLANNED ACCOMPLISHMENTS FOR FY 1994

In addition to continuation of funding for many ongoing projects, ATMS R&D efforts are being initiated in areas such as development of freeway incident detection techniques, development of alternative real-time traffic adaptive control strategies, and development of a dynamic traffic assignment model which will enable traffic managers to optimally distribute traffic over a network in response to changed traffic conditions. The effectiveness of alternative surveillance technologies will be determined.

ATIS efforts include further assessment of communications technologies to determine their IVHS potential, including analysis of data rate and bandwidth requirements and the potential of the emerging National Information Infrastructure; development of design considerations to accommodate electromagnetic compatibility; development and assessment of in-vehicle signing concepts; and completion of the evaluation of TravTek. Examination of the need for a differential GPS (DGPS) national system for in-vehicle navigation systems will continue in the context of an examination of user requirements for the entire Federal civilian sector. A new study will analyze the criteria and decision processes used by travelers when choosing departure times, selecting routes and rerouting when encountering traffic congestion.

CVO-related efforts include development of: systems to remotely inspect or aid in the safety inspection of key commercial vehicle components; systems to improve the safety of hazardous materials shipments; and system design concepts for a national IVHS truck network that would allow trucks to pass unimpeded on our nations highways while their weight, credentials, and safety were checked at mainline speeds.

AVCS efforts, aside from those associated with AHS, will be limited to continuing examination of the infrastructure needs and traffic effects of proposed systems.

PLANNED ACCOMPLISHMENTS FOR FY 1995

R&D projects in FY 1995 will be guided by the National IVHS Program Plan. Proposed work for FY 1995 funding will include initiation of a number of projects in the ATMS area such as development and testing of new detection technologies and traffic surveillance systems; integration of simulation, analysis, and control software, including integration of real-time traffic control with travel forecasting models; and application of advanced computation and display techniques such as parallel processing, real-time operating systems, and virtual reality to traffic management center operations.

ATIS efforts will include continued evaluation of advanced, alternative communications systems through prototyping and testing, continued development of design considerations to assure electromagnetic compatibility, and continued development of in-vehicle signing concepts. Work will be undertaken in cooperation with the private sector, the Federal civilian sector, and State/local governments, to define an approach for implementation of a national Differential Global Positioning System network for land mobile navigation as well as other (non-IVHS) civilian uses. New projects may include the development of integrated rural IVHS system concepts, including ATIS and CVO user services.

New CVO projects may include the initiation of the development of real-time commercial fleet management systems, in cooperation with the private sector. Work will be completed on development of systems to automate the truck safety inspection process, systems to improve the safety of hazardous materials shipments, and system design concepts for the national IVHS truck network.

A crosscutting study in human factors will address human factors issues related to systems which enhance visibility under adverse conditions. Formal evaluations of operational tests will also continue in 1995.

The increase in funding will be used to accelerate R&D projects which will help bring IVHS products and services to the marketplace more rapidly, consistent with the National IVHS Program Plan. Seven million dollars of this money in FY 1994 and $10 million in FY 1995 will be provided to NHTSA to conduct evaluations of the safety aspects of IVHS systems and to develop performance specifications for collision avoidance systems, many of which are critical for the automated highway system. Examples of the R&D efforts which will be accelerated include development of: in-vehicle information and safety warning systems that are sufficiently intelligent to limit messages to those pertinent to the specific individual's trip; and further development of "smart card" systems that would have the capacity for multiple functions, allowing the user to access both transportation and commercial services with a single card.

Also supported would be research by NHTSA on the requirements of collision avoidance systems that would accelerate development of commercial technologies to mitigate various types of accidents, and vehicle performance monitoring systems that would alert the driver to potentially dangerous malfunctions before an accident or breakdown occurs.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
2. IVHS Operational Tests	$15,000	$30,000	+$15,000

BACKGROUND

A key element of the national IVHS program is operational testing targeted towards bridging the gap between IVHS R&D activities and full-scale deployment of proven technologies. Operational tests evaluate one or more new technologies, system concepts, institutional and financial arrangements in a real world highway environment under live transportation conditions. Numerous IVHS tests are already underway using funding from the ISTEA.

Operational tests are conducted as partnerships between the public and private sectors, with the partners sharing in both the technical and financial aspects of the project. The partnerships formed to conduct these tests help accelerate deployment of IVHS services and provide the private sector partners with a competitive edge in the global IVHS marketplace.

OBJECTIVES AND APPROACH

The objectives of operational tests are to gain an understanding of user acceptance of IVHS services, thereby helping to better define user requirements. Operational tests identify acceptable system concepts and institutional arrangements for providing user services and acceptable enabling technologies for accomplishing the services. Cost and benefit data is obtained through formal evaluations.

Operational tests will be conducted both as part of a comprehensive corridor approach within the four designated IVHS Priority Corridors and as individual project initiatives. Within the Priority Corridor sites, operational test projects will be negotiated each year, based on the plans of the corridor as well as the national interest in advancing the IVHS program. Additional operational tests in other locations will be solicited to fulfill program needs.

The FHWA will be guided by the National IVHS Program Plan in determining operational test needs. The selection of proposed project partnerships for these tests will be guided by criteria which emphasize the project's potential contributions to advancing the national IVHS program and the probability of success for the technical and/or institutional aspects of the project. Uniform guidelines for evaluating the safety and operational impacts of IVHS systems and technologies during the operational tests will assist in making decisions on deployment and ensuring that public benefits are being achieved.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Numerous IVHS operational tests have been initiated through FY 1993 using funding from the ISTEA and other sources. Among these are the TravTek project in Orlando, Florida, the ADVANCE project in Chicago, the HELP/Crescent commercial vehicle corridor along the west coast, and the TravelAid project along a hazardous rural interstate in Washington. Results from these early tests are already contributing to the knowledge and experience needed to advance the IVHS program.

Based on responses to an open solicitation for proposals during 1992, 16 new operational test proposals were selected for FY 1993 support. These operational tests will evaluate IVHS systems and technologies such as spread spectrum radio technology, a dynamic truck speed warning system, an on-board computer system to automate mileage and other recordkeeping for commercial vehicles, and a system to warn drivers of low visibility in rural areas.

PLANNED ACCOMPLISHMENTS FOR FY 1994

ISTEA funding will continue to be the primary source for FHWA support for new operational test initiatives. Several projects established during 1993 and prior years will continue to be supported. Funding will be used to supplement existing ISTEA resources, allowing expanded efforts to expeditiously meet program needs. Expanded operational testing activities will also promote a significant commitment to IVHS, among both the public and private sector, that is crucial for early and successful deployment of commercial IVHS products and systems.

New operational test projects in 1994 will include testing of emergency notification and personal security systems, automated roadside safety inspections and commercial vehicle administrative processes, travel demand management strategies, en-route driver advisory and traveler services information, and personalized public transit and public travel security.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Increased funding in 1995 will continue to allow FHWA to maintain an adequate level of support for new and continuing operational tests. Additional operational test needs will be identified based on the initial version of the National IVHS Program Plan and the anticipated availability of new R&D products, such as adaptive traffic control strategies, incident detection and management techniques, and rural traveler information systems.

It is proposed that an additional $15 million be invested in IVHS operational tests and supporting research to further defense technology conversion objectives and achieve IVHS program objectives in areas such as public transportation, commercial vehicle operations, hazard warning and emergency notification systems, advanced vehicle safety systems, and traffic management applications. Cooperative efforts with the Department of Defense and the National Laboratories to more proactively identify potential advanced technology applications would be included. Also included would be sponsorship of research studies that would effectively take advantage of using the operational test projects to examine issues such as user response and technology performance in an operating environment.

Essentially, the only funds available to support the FY 1994 operational test solicitation process are those made available by last year's budget increase. This falls short of what could be effectively invested to address operational testing needs in all IVHS program areas being identified in the National Program Plan. For example, approximately 60 proposals in response to the FY 1994 solicitation have been received seeking over $100 million in Federal partnering funds. Only 15-20% of the proposals received will be supported with the funds available.

	AUTHORIZATION/OBLIGATION LEVEL FY 1994	 FY 1995	 CHANGE
3. **Commercial Vehicle Operations**	$10,000	$10,000	...

BACKGROUND

The safe, efficient operation of commercial vehicles is crucial to the economy of the nation. The goal of the commercial vehicle operations (CVO) portion of the IVHS program is for trucks to travel like cars in this country, without having to stop in each State for weight, credential or safety inspections. Instead, these items will be checked by advanced technologies as the truck moves down the highway at prevailing speeds. This will lead to more efficient movement of goods and increases in productivity for the motor carrier industry.

OBJECTIVE AND APPROACH

The objective of the CVO element of the IVHS program is to use advanced technologies to increase the efficiency of commercial vehicle operations; reduce the motorfreight paperwork burden associated with the issuance of State credentials, the recording of mileage for fuel tax apportionment, and the monitoring of size and weight compliance; and improve the screening and safety inspection process through real-time vehicle and driver monitoring systems. Several projects in the CVO area are already underway using funding from the ISTEA. Funding would bring these projects together to begin to form a national commercial vehicle network. These additional funds would rapidly advance the commercial vehicle portion of the IVHS program, providing significant safety and productivity gains for the motor carrier industry.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

The HELP/Crescent was initiated in FY 1991 using funding from GOE and, in FY 1992 and 1993, the ISTEA. HELP/Crescent is a partnership between several States and the motor carrier industry featuring instrumented trucks and weigh stations operating along a corridor from Texas to British Columbia. Advantage I-75 is another major CVO operational test initiated using ISTEA funding. The project is a multi-state partnership of both public agencies and motor carrier interests along the Interstate 75 corridor from Florida to Michigan and the Highway 401 corridor in Ontario, Canada. Both projects will enable legal trucks to bypass weigh stations and ports of entry, saving millions of dollars annually for the trucking industry by eliminating unnecessary stops and delays. The newest initiative is the I-80/National Commercial Vehicle Program. The I-80 program will include the States from California to New York and bring the other projects together to form the beginnings of an electronic information network for commercial vehicles.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Funding will be used to greatly accelerate the CVO Program. The major activity to be supported with FY 1994 funds will be to initiate development of and build consensus for the requirements, system design, and technical guidelines and standards for a National IVHS Commercial Vehicle Network. Support for follow-on work to implement the recommendations of the CVO institutional studies will be provided. Operational tests of CVO services to be provided in the national network will also be conducted.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Work on national standards for the National Commercial Vehicle Program will continue. All commercial vehicle institutional issues studies will be completed, and funds will continue to support implementing recommendations from these studies. Operational tests of CVO services will continue.

	AUTHORIZATION/OBLIGATION LEVEL FY 1994	 FY 1995	 CHANGE
4. Automated Highway System	$10,000	$20,000	+$10,000

BACKGROUND

The ISTEA directs the U.S. DOT to develop an automated highway and vehicle system, and establishes a goal of having a prototype demonstration in place by 1997. Although Congressionally mandated, the AHS program was not specifically funded in the ISTEA. Initial work to date has been funded from other elements of the IVHS program. However, starting in FY 1994 GOE funding was provided for this project.

OBJECTIVES AND APPROACH

The objective of the AHS is to develop a system of instrumented vehicles and highways that provides fully automated, "hands-off," operation at better levels of performance, in terms of safety, efficiency and comfort, than today. The AHS of this vision will also be practical, user-friendly, and financially affordable; deployable to both urban and rural areas; and will preserve the ability of instrumented vehicles to operate on non-instrumented roadways.

The first phase of the AHS development is ongoing and is directed at broadly addressing issues related to AHS development and deployment. The second phase will begin in FY 1994 and will be focused on definition of the optimum system configuration and will include the major program milestone of a 1997 demonstration of a prototype AHS as specified by Congress. Pursuit of AHS technology is extremely important, since an entirely new level of benefits may be realized with the complete automation of certain facilities in critical high demand traffic corridors. By eliminating human error, an automated highway system could provide a virtually accident-free driving environment. The precise, automated control of vehicles on an automated vehicle-highway system could also result in an increase of two or three times the capacity of present day facilities, potentially coupled with more environmentally benign propulsion methods.

In addition to the large potential for public benefits development of the AHS will spawn numerous commercial opportunities for U.S. electronics and communications firms, as well as many other large and small high-tech companies. The program will also provide opportunities for the American automobile industry to develop and market new products that will operate on an automated highway system. Deployment of collision warning and other driver assist systems will be greatly accelerated as AHS R&D spins off new technologies.

Like other elements of the IVHS program, the development of the AHS will maximize the involvement of the private sector in all aspects of the effort, and is intended to involve cost sharing by the private sector partners.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

The first step in the development of the AHS was the award of a contract in September 1992 to research the human factors aspects of an AHS from the driver's perspective in order to provide design guidance on key issues pertinent to automated highway system operation. This contract was funded from GOE as part of the IVHS R&D program. Work continued on this multi-year effort in FY 1993.

A Broad Agency Announcement (BAA) was issued in FY 1993 to address other key issues regarding the development of an AHS. Fifteen contracts were awarded to analyze issues pertaining to AHS applications, technology, design, deployment, operations, and practicality. These contracts are up to 1-year in duration, and provide direct input into the other phases of the AHS development. Funding for these contracts came from the "high risk" provision of the ISTEA IVHS Corridors Program that allows 100% Federal share.

PLANNED ACCOMPLISHMENTS FOR FY 1994

The first dedicated funding source for the AHS will greatly accelerate its development. The demonstration phase of the program will begin in FY 1994 with the establishment of a national consortium to perform prototype system development activities.

Specific activities to be undertaken by the consortium in FY 1994 would include development of system requirements, exploration of alternative system concepts, and initial planning for the 1997 prototype demonstration.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In FY 1995, it is expected that the consortium would select promising system concepts and begin prototyping and testing key subsystems. In addition, the consortium would select a site and begin developing a test facility for demonstrating the prototype AHS.

In FY 1995, as in FY 1994, additional funds would serve to accelerate development. In particular, additional funds could make it possible to fully prototype and test more than one system approach, reducing program risk and increasing the likelihood that the best approach is implemented.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
5. **Advanced Technology Applications**	$15,000	$30,000	+$15,000

BACKGROUND

IVHS is developing at the same time that the reduction of the international military threat is making it possible to reduce investments in national defense. The tremendous technological resources represented by the people and facilities of the defense industry and the National Laboratories can be applied to IVHS to preserve these industries and to help ensure U.S. leadership in international competition for IVHS development.

OBJECTIVES AND APPROACH

There is a strong technical synergism between defense and IVHS in areas such as sensor systems, ultra-reliable system design, communications, expert systems and artificial intelligence. Capitalizing on this synergism will utilize national resources already in place and help bring IVHS systems to the market place sooner. This will benefit product developers, society, and of course, the country's national defense, by ensuring the continued availability of critical technological resources.

Partnerships with the national labs and the defense and space industries could greatly accelerate the transfer of these technologies to IVHS applications. Major defense firms, such as AT&T, Rockwell and Grumman, as well as numerous smaller firms, have already expressed a strong interest in partnering with the US DOT to apply existing technologies to IVHS applications and products. Discussions are also underway with the Advanced Research Projects Agency (ARPA) on applying defense technologies to IVHS applications.

Transfer of these technologies to IVHS applications is an outstanding opportunity for a "win-win" situation for everyone involved. Defense industry employers, and their employees, can have a new market for their skills and technologies, avoiding potential loss of a critical national resource. At the same time, the transportation world will benefit from a transfer of technology that the taxpayers have already paid to develop, and the entire economy will benefit from an improved transportation system.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Funding will allow the U.S. DOT to establish these partnerships to accelerate transfer of a host of defense and space technologies to the IVHS marketplace. Discussions are underway with DOD's Advanced Research Projects Agency (ARPA) and DOC's National Institute of Standards and Technology (NIST) to work together on defense technology applications for IVHS. One example could be using passive acoustic sensors developed by the defense industry for maritime vessel surveillance to provide incident detection for advanced traffic management systems. Discussions are also underway with ARPA concerning transfer of DOD technologies such as acoustic and machine vision detectors, laser and imaging sensors, communications, and advanced simulation techniques to IVHS applications.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Additional funding in FY 1995 will continue to be used to accelerate the application of defense-related technologies to IVHS. Potential technology applications include high-performance distributed computing systems, simulation of complex systems, vehicle command and control, and rapid prototyping. New partnerships will be initiated with defense and aerospace firms to bring their technologies to use in IVHS systems.

An additional $10 million is proposed for the advanced technology applications program categories. Funds would be focused on exploring and developing IVHS applications of technologies available or emerging in the defense industry and national labs. Particular focus would be on developing prototype products that have potential for evolving into commercial products that could be sold in the international IVHS marketplace. Promising functional areas include sensing, surveillance, and communications technologies and simulation modeling techniques for application with new vehicle safety systems, traffic and transit management systems, traveler information systems, and commercial vehicle applications.

	AUTHORIZATION/OBLIGATION LEVEL FY 1994	 FY 1995	 CHANGE
6. Priority Corridors	...	$15,000	+$15,000

BACKGROUND

The ISTEA established the Corridors program and provided for $86 million per year in funding support. It required that at least $43 million be invested each year in the implementation of IVHS in Priority Corridors. Based on the criteria established in the ISTEA, four Priority Corridors have been established: the Northeast Corridor centered along I-95 and stretching through 6 States from Maryland to Connecticut; a Midwest Corridor centered around the Chicago metropolitan area and stretching from Gary, Indiana to Milwaukee, Wisconsin; the Houston, Texas metropolitan area; and a Southern California Corridor centered around I-5 from Los Angeles to San Diego. These sites will become national test beds for IVHS where, in most cases, the public will first be introduced to IVHS services and technologies. Over the long term, funds spent on each corridor site, along with funds that this money leverages, will result in the establishment of an IVHS infrastructure that will support continuing deployment of IVHS technologies and services.

OBJECTIVES AND APPROACH

The jurisdictions in the four corridors have joined together and are producing a business plan for each Corridor that defines the intermodal IVHS efforts planned to address a set of identified needs. Operational test projects will be negotiated each year with the sites, based on the plans of the region as well as the national interest in advancing the IVHS program. In this way, the Priority Corridors will help to support the comprehensive IVHS Operational Field Test program as these areas move towards deployment of integrated IVHS applications. In addition, Corridor Program funds at these sites may support certain planning, feasibility, and conceptual efforts.

ACCOMPLISHMENTS TO DATE (FY 1994 AND PRIOR)

The "I-95 Corridor Coalition" is developing the program for the Priority Corridor in the I-95 Northeast Corridor. This Coalition consists of State-level DOTs and toll authorities from Virginia to Maine, working to foster a regional, multimodal approach to transportation management which can effectively incorporate IVHS user services. The first Business Plan for the Coalition was adopted in May 1993, and the first-year projects outlined in the document are now being implemented. The I-95 Northeast Priority Corridor will explore many of the methods and issues involved in implementing an interjurisdictional, multimodal IVHS across numerous States and metropolitan areas.

The Midwest Gary/Chicago/Milwaukee Corridor is still in the early stages of formation. The three participating DOTs have signed a memorandum of understanding pledging to work together and are in the process of hiring a consultant to develop the corridor program plan.

The Houston, Texas Corridor builds on long-standing working relationships among the Texas State DOT, the transit agency, the City of Houston, and Harris County. Houston has a strong history of high occupancy vehicles and public transit innovation, and we expect that this will continue as a major focus of their efforts. In addition, a public/private forum has been established to share the views of all stakeholders and work toward common goals.

The Southern California Corridor is expected to focus on expanding the traffic control and incident management concepts used in the Smart Corridor Operational Test and numerous other initiatives. The Smart Corridor effort integrates freeway and parallel arterial control and employs expert systems to assist in decision-making. This Corridor has several ongoing IVHS operational tests focusing on traffic control technology and issues.

PLANNED ACCOMPLISHMENTS FOR FY 1995

The estimated cost to support the visionary efforts planned by the jurisdictions involved in the Priority Corridors program exceeds the amount recently made available for the Priority Corridors through the annual appropriations process. Priority Corridor funding is also being used for congressionally earmarked projects not jointly supported by the jurisdictions involved in developing the Corridor business plans. For example, the legislatively required minimum $43 million for the Priority Corridor sites could not be provided as a result of the earmarking in the FY 1994 DOT Appropriations bill. It is proposed that an additional $15 million be invested annually in supporting introduction of IVHS in the Priority Corridors.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
7. **Deployment Support**	...	$10,000	+$10,000

BACKGROUND

The promise of IVHS benefits will only be achieved through deployment of IVHS user services. In order to function, most of the services require a surveillance and control infrastructure. Provision of this infrastructure has traditionally been the responsibility of the public sector, and this tradition will likely be maintained to a large degree in the near future. Federal-aid funding has and will continue to be a primary source of financial support for public infrastructure. Although changing, use of Federal-aid funds for this purpose has been problematic because of the construction tradition of most public agencies and the competition for Federal-aid funds for other pressing needs.

OBJECTIVES AND APPROACH

To speed the thought process of public agencies in providing the necessary infrastructure to support IVHS services, a deployment planning program has been initiated which provides $7 million annually in ISTEA funds to state and local jurisdictions. The objective of the program is to financially aid jurisdictions in the analysis of IVHS applications to local transportation problems and in the development of a strategic deployment plan for IVHS deployment.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

The following projects were funded using ISTEA funds in FYs 1991 and 1992 for a total of $6.6 million:

- Boston, Massachusetts
- Rochester, New York
- Pittsburgh, Pennsylvania
- Hampton Roads, Virginia
- Charlotte, North Carolina
- Tampa Bay, Florida
- Louisville, Kentucky
- Charleston, South Carolina
- Greenville, South Carolina
- Detroit, Michigan
- Dallas, Texas
- Austin, Texas
- St. Louis, Missouri
- Denver, Colorado
- Orange County, California
- Portland, Oregon

Corridor Projects
- I-5: Los Angeles to San Diego
- I-5: Tacoma to Portland
- I-85/I-40: Greensboro, North Carolina
- I-70: Denver to Vail, Colorado

The following projects were selected for funding in FY 1993 for a total of $5.8 million in ISTEA funds:

- Buffalo, New York
- San Francisco, California
- Las Vegas, Nevada
- I-76, Pennsylvania Turnpike
- Kansas City, Missouri
- New Orleans, Louisiana
- Tucson, Arizona
- Salt Lake City, Utah
- Atlanta, Georgia
- Omaha, Nebraska
- Cleveland, Ohio
- Sacramento, California
- Raleigh, North Carolina
- San Juan, Puerto Rico
- Washington, D.C.

The following projects have already been identified for funding in FY 1994:

- Phoenix, Arizona
- Providence, Rhode Island
- Nashville, Tennessee
- Honolulu, Hawaii
- Philadelphia, Pennsylvania
- Birmingham, Alabama
- Hartford, Connecticut
- Indianapolis, Indiana
- Grand Rapid, Michigan
- Richmond, Virginia
- Westchester/White Plains, New York
- Washington, DC (continued)

It is anticipated that additional Fiscal Year 1994 projects will be solicited through the Federal Register process after the first of the calendar year.

PLANNED ACCOMPLISHMENTS FOR FY 1995

a. Deployment Planning - This program will accelerate assistance to State and local transportation agencies and Metropolitan Planning Organizations(MPO) for the development of a multi-year strategic deployment plan for IVHS in major metropolitan areas and on major Interstate Intercity corridors. The goal has been to reach the 75 largest metropolitan areas, and 30 of the intercity corridors during the six years of the program under ISTEA. Additional funds in this program category would enable attainment of this goal in half of the time.

b. Deployment Guidelines - Deployment of IVHS services can also be hastened through support of development of technical guidelines, specifications and standards. Development of these will be supported as consensus emerges as to their need and the existence of a suitable knowledge base upon which to build. In the near term, focus may be in technical areas such as map data base compatibility, vehicle-to-roadside communications, travel time data reliability, and human factors guidelines for public safety purposes.

c. Outreach Activities - The possibilities of IVHS are well-recognized by those involved in the program, but the potential benefits are not well understood by many of those ultimately responsible for deployment. These include those that are potential customers of products and services, as well as local highway and transit operating agencies, metropolitan planning organizations, commercial vehicle regulatory agencies and others. Deployment of IVHS services and realization of IVHS benefits could be substantially supported through expansion of a variety of outreach activities specifically targeted at different audiences or market segments. These include, for example, the transportation user, the trucking community, elected and appointed officials, transportation managers, public agency administrators, etc. Funds would also be targeted to stimulate young people's interest in technology related careers through the Youth Corps Program.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
8. IVHS Program and Systems Support	$12,300	$12,300	...

BACKGROUND

The IVHS program has grown quickly and the need for efforts that support the research, development and testing of IVHS user services has grown commensurately. These supporting efforts include studies aimed at resolving institutional and legal issues that may hinder IVHS deployment, technology transfer activities, and procurement of program and system engineering technical support services to aid in effective program and project management.

OBJECTIVES AND APPROACH

The objective of IVHS program and systems support is to ensure that Federal funds invested in IVHS research, development and testing are effectively spent by supporting activities that provide for development of an institutional and legal framework that will support deployment of IVHS user services, preparation of technical materials to aid in the design and operation of deployable IVHS services, the building of public/private consensus on IVHS program issues, and for proper technical review, support and integration of IVHS projects.

This objective is accomplished through support of projects aimed at resolving institutional issues such as government procurement regulations, public/private cooperation issues such as intellectual property rights, and legal issues such as tort liability. Technology transfer projects include preparation of technical handbooks, sponsorship of training courses and outreach activities. Funding support is provided for IVHS AMERICA as the national forum for the building of public/private consensus on IVHS program matters. Funding support is also provided for the program and systems engineering technical support contract with the MITRE Corporation to provide for technical project reviews and integration.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Accomplishments for the Institutional and Legal Issues Program include a January 1993 conference on "IVHS Public/Private Partnerships - Managing the Legal Issues" where representatives from Federal, State, and local governments and industry received an overview of intellectual property, procurement, cost accounting and other legal issues involved in implementing an operational test. Other projects implemented in 1993 include (1) a case study of certain operational tests to examine the institutional and legal arrangements used for development and implementation of the test, (2) a study of educational and staffing needs for IVHS deployment, (3) a study to determine whether there are specific impediments to greater coordination among regional and metropolitan traffic management operations, and (4) completion of a report identifying and evaluating legal constraints to IVHS deployment. An important aspect of the institutional issues program will be the completion of the Nontechnical Constraints Report to Congress.

The primary technology transfer accomplishment has been the establishment of a broad outreach program in cooperation with IVHS AMERICA. This program is aimed at educating stakeholders and the public in general about the potential benefits associated with deployment of IVHS services.

Great progress has been made during 1993 and prior years in establishing and cementing a cooperative relationship with IVHS AMERICA. Primary accomplishments include progress towards development of the National IVHS Program Plan, and establishment of a program to build consensus for the establishment of an open IVHS architecture to achieve national compatibility.

The program and systems engineering support services contract with the MITRE Corporation has been used to support a wide array of efforts such as early work towards establishment of an IVHS architecture, definition of an AHS program, and technical support for operational tests projects and evaluations.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Institutional and legal issues projects that will be supported with FY 1994 funds include work on issues associated with procurement of IVHS technologies (e.g., intellectual property rights), development of consensus on liability risk and risk management, market research aimed at defining user needs for IVHS services, studies of how IVHS services might help non-attainment areas achieve environmental goals, and facilitating incorporation of innovative financing, procurement and project negotiation techniques into operational tests.

Plans for technology transfer activities in FY 1994 include continuation of the outreach program, addressing issues related to incorporating IVHS considerations into ISTEA management systems and State and metropolitan planning processes, developing requirements for an advanced traffic management training simulator, and sponsorship of focus group meetings on products being developed in the R&D program.

We will continue to support IVHS AMERICA to help advance important program initiatives, such as annual program planning, the building of consensus for a national IVHS architecture, and outreach activities, emphasizing State and local governments.

Funding support will be provided for the final option year of the MITRE support contract.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Work will continue in a number of areas previously initiated. For example, institutional experiences from mature IVHS operational tests will be available to develop a comprehensive "best practices" guide. Sponsorship of training courses on IVHS procurement will commence. Research is planned on the extent to which insurance may be available to reduce tort liability risk. And support will continue for incorporation of innovative financing, procurement and project negotiation practices in operational tests.

Technology transfer activities will also build on previous work. For example, case studies may be conducted of how the results of IVHS deployment planning were addressed in State and metropolitan transportation plans. The building of the advanced traffic management training simulator will commence. And focus group activity critiquing R&D products will continue.

Funding support for IVHS AMERICA will continue. Specific activities will continue to be supported through a series of task orders negotiated annually.

The growth in the IVHS program initiated by the ISTEA and the expanded GOE initiative requires that the level of IVHS program and system support efforts be expanded. A new program and systems engineering support services contract will be negotiated to continue to support critical program activities, including IVHS system architecture development, radio frequency acquisition, the automated highway system, program planning, and operational test evaluations. Procurement of additional support contract resources will provide for areas such as information management and outreach.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
C. **LONG-TERM PAVEMENT PERFORMANCE**	$7,000	$13,000	+$6,000

BACKGROUND

The Strategic Highway Research Program (SHRP) began on April 2, 1987, when Congress passed the Surface Transportation and Uniform Relocation Assistance Act of 1987. The legislation provided funding of approximately $150 million over a 5-year period beginning that year.

The Long-Term Pavement Performance (LTPP) study was envisioned as a 20-year program from its inception. The first 5 years were funded under the SHRP and the Federal Highway Administration (FHWA) assumed responsibility on July 1, 1992, for the remaining 15 years. A new LTPP Division was created within the Office of Engineering and Highway Operations Research and Development to continue this program. The LTPP Division is responsible for the management and coordination of the data collection efforts on more than 1,800 test sections located on in-service pavements across the United States and Canada.

The focus of the research program in the SHRP was designed to address technical areas where a significant improvement in technology was needed, where limited resources had been previously invested in research and development, and where significant potential for success was perceived. The research includes four technical areas: asphalt, concrete and structures, highway operations, and long-term pavement performance (LTPP). The report "Strategic Highway Research Program Research Plans," May 1986 outlined the research program for the four technical areas.

OBJECTIVES AND APPROACH

The FHWA program represents the continuation of the LTPP portion of the SHRP. It is a national, in-service pavement performance monitoring program intended to develop a data base on the effects of pavement design, loading, materials, environment, construction, and maintenance on the service life of the pavement. The specific objectives of the LTPP program are:

- Evaluate existing design methods.
- Develop improved design methodologies and strategies for the rehabilitation of existing pavements.
- Develop improved design equations for new and reconstructed pavements.

- Determine the effects of loading, environment, material properties and variability, construction quality, and maintenance levels on pavement distress and performance.
- Determine the effects of specific design features on pavement performance.
- Establish a national long-term pavement data base to support these objectives and future needs.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

As the largest pavement performance research project ever undertaken, this effort involves periodic data collection and condition monitoring of approximately 1,800 in-service pavement test sections located throughout the United States and Canada over a 20-year period. The LTPP research includes two types of experiments, the 800 General Pavement Studies (GPS) and the 1,000 Specific Pavement Studies (SPS). The GPS experiments focus on existing pavements and pavement designs most commonly used in the United States and Canada. Individual test sections offer a wide range of values for key study variables, and selected co-variables. The SPS experiments involve test sections constructed specifically for the LTPP research, and focus on the efficacy of specific pavement design factors involved in new pavement construction, the application of maintenance treatments to existing pavements, and pavement rehabilitation. Highways selected for inclusion in the GPS and SPS experiments cover the full range of environmental conditions found in the United States and Canada. By virtue of incorporation on in-service highways, test sections are subjected to "real" non-idealized traffic loadings. Hence, the research results will be more broadly applicable than those of many earlier pavement performance studies. As the data collection and data base development progress, the scope and depth of the data analysis will be expanded to establish the relationships among pavement performance and design, materials, construction, maintenance, traffic, environment, and geographic location.

The SHRP has completed all field data collection guides, engineering experimental designs, material handling and testing methods, and equipment calibration procedures. The SHRP established field evaluation procedures and material testing methods are being reviewed by the American Society for Testing and Materials (ASTM) and the American Association of State Highway and Transportation Officials (AASHTO) Materials Subcommittee for adoption as standard ASTM and AASHTO methods and specifications.

The initial round of data collection was completed on all GPS sections and on some of the constructed SPS sections. This included materials sampling, deflection testing, distress photography, and profile measurements. Additional rounds of monitoring data collection are in progress under FHWA management.

The FHWA LTPP Division staff worked closely with the SHRP LTPP staff to ensure a smooth transition of all administrative and technical activities. A major task was to transfer all technical contracts from SHRP to the FHWA procurement system. In order to accomplish this, all contracts were re-advertised, evaluated, and selected. The four regional correlation contractors were the first group to go through this exercise in 1992. Distress condition survey, material testing, and technical support contracts were also transferred in 1992 and 1993.

A contract with the Transportation Research Board (TRB), executed in May 1992, provides for: (1) a committee structure similar to that which existed under SHRP, to oversee the construction of LTPP and the implementation of selected SHRP products; and (2) maintaining and operating the LTPP data base.

PLANNED ACCOMPLISHMENTS FOR FY 1994

The identification and establishment of 800 test sections for the GPS experiments were completed under the SHRP-LTPP. The field observation and data collection will continue. Some of the GPS sections will be reclassified during the next few years because of overlays or other rehabilitation measures.

The SPS experiments were initiated just prior to the completion of the SHRP. In order to assist the States to complete this experiment, FHWA has established a procedure to provide additional funding to aid the States. The LTPP Division plans to complete 60 percent of the required SPS experimental sections in 1994.

The seasonal monitoring program will be activated. The program will be conducted on 64 GPS sites with special instrumentations and will provide the data needed to evaluate the magnitude and impact of temporal variations in pavement response and properties due to the separate and combined effects of temperature and moisture variations.

The SHRP Asphalt Materials Reference Library will be reorganized to serve as the LTPP Material Reference Library (LTPP-MRL). In addition to the asphalt references, the library will also store materials from selected SPS construction sites.

Other SHRP research activities including asphalt, concrete and structures, and maintenance and highway operations were completed in March 1993. The monitoring of many of these activities will to be continued beyond 1993 to fully evaluate the life cycle effectiveness. Procurement requests for these items will begin in FY 1994.

PLANNED ACCOMPLISHMENTS FOR FY 1995

Field data collection, distress condition survey, and some material testing and investigations will continue for 13 more years. The national and international LTPP data bank, housed at the TRB, will continue to expand with the input of additional monitoring data. Steps will be taken to improve the information management system data release mechanism.

Design and construction of required SPS sections will be 80 percent complete. Selected SPS-9 sections (validation and verification of SHRP asphalt research findings) will be designed and constructed.

Significant data analysis effort will be initiated to:
(1) develop a broadly applicable relationships between backcalculated layer moduli and laboratory test results;
(2) develop an improved pavement performance index for use in pavement management; and (3) conduct a Bayesian statistical analyses to update/calibrate versions of existing design procedures with incomplete statistical experiments.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
D. TECHNOLOGY ASSESSMENT AND DEPLOYMENT	$12,000	$15,000	+$3,000

BACKGROUND

The purpose of Technology Assessment and Deployment is to ensure the timely identification and assessment of innovative research results, technology, and products and the application of those that are determined to be of potential benefit to the highway community. Technology Assessment and Deployment is a critical follow-on activity to Research and Development (R&D) as a means to ensure the potential return on investment through increased productivity and savings in pertinent related systems.

The task of moving the results of R&D from the laboratory and innovative technologies from other sources into practice has long been assigned to the Federal Highway Administration (FHWA). The widespread and decentralized nature of the highway program and FHWA's ability through its field structure to reach the 50 State highway agencies, the 37,000 plus local units of government, the U.S. territories, and, with the enactment of the ISTEA of 1991, American Indian tribal governments makes the agency ideal for transferring technologies and for disseminating technical information to the highway community.

Technology assessment and deployment requires an extensive effort and resources to obtain widespread and timely application of new products and technologies. The national interest in ensuring widespread application of new technologies is clear—witness the Stevenson-Wydler Technology Transfer Act of 1986 which recognizes the need for special, designed, and targeted efforts. In addition, the Intermodal Surface Transportation Efficiency Act of 1991, specifically identifies technology transfer as a priority, both in relation to R&D in general and directly in relation to the completion of SHRP research efforts, reaffirming FHWA's role in this area.

Finally and importantly, the U.S. highway community has long looked to the FHWA throughout the agency's 100-year history for the transfer of technology. This is supported by agreement among principals from FHWA, the American Association of State Highway and Transportation Officials, and the National Academy of Sciences that FHWA will be responsible for implementation of products from R&D programs being enhanced at both the national and State levels.

OBJECTIVES AND APPROACH

The one main mission of FHWA's Technology Assessment and Deployment Program, which is administered by the Office of Technology Applications (OTA), is technology transfer—the process employed to ensure the timely application of innovative research results. For any technology transfer program to be successful, two major objectives must be accomplished.

The first is to ensure that the innovation is truly a better way of doing business. The innovation needs to solve the technical problem at hand, not cause more expense or complication. The second objective is to ensure that the end user is conditioned to accept the innovation—the change. That person needs to be made aware of the advantages and be willing to expend time and resources to accept the new. The natural human tendency is to resist change. Personal and institutional barriers to change must be overcome for innovation to be implemented.

Of key importance in accomplishing these objectives is how the new technology is packaged and marketed. It must be made easy to understand and readily adaptable with sufficient data to support the benefits of abandoning the old ways and deploying the new.

The FHWA carries out its Technology Assessment and Deployment mission by coupling good communication skills with several marketing techniques. Two techniques that have been especially productive are the use of incentive funding and "hands-on" demonstrations. In the first case, incentive funding is made available to encourage State departments of transportation to construct, assess, and document the results of using innovative technology on their home turf. Use of the hands-on demonstrations involves taking the innovative technology to the several States, where FHWA technical experts facilitate a first-hand experience for the end user. These efforts provide real world trials for the technology and put the assessment into the hands of an ultimate user. Further, it makes the assessment State part of the process and puts it in the prominent position of change agent. Through the assessment project, the State can convince itself of the value of the new technology and in turn convince other States.

FHWA has also been extremely successful in employing the "seeing-is-believing," sometimes referred to as the "hands-on" philosophy, to accomplish change and to introduce and promote innovative technology. This technique includes use of mobile laboratories, equipment loans, display panels, and construction equipment actually brought to the construction site for demonstration and use in real life situations.

Other marketing techniques used include publications, how-to-do-it and training videotapes, manuals, exhibits, guide specifications, and, most important, technical assistance in the use of these materials when designing and deploying innovative products. Technologies also are taken to the States in mobile laboratories, through equipment loans, and with construction equipment demonstrated onsite in real life situations. Fact finding trips abroad to identify technologies for use in the United States is another mission of FHWA's technology transfer efforts.

ACCOMPLISHMENTS TO DATE (FISCAL YEAR 1993 AND PRIOR)

ROADWAY APPLICATIONS

There is a cooperative effort among FHWA, the States, and the concrete pavement industry in the area of fast track paving. The task force has addressed two very significant issues: the pavement strength values for early opening to traffic and the high heat temperature management of new innovative mixes. The partnering effort is leading to some very significant breakthroughs that will minimize the lane closure time required for concrete pavement repairs and reconstruction—a very significant benefit in urban and traffic sensitive locations.

The asphalt mobile laboratory completed six workshops in addition to conducting 3-week testing programs at contractor plants. The workshops brought out the very innovative use of volumetric design and control of asphalt mixes. The effort included continued promotion of innovative equipment, including laboratory compaction methodologies and nuclear asphalt content determination, and addressed the environmentally sensitive use of chemicals used in the normal quality control program. The information presented at the workshops were included in a technical paper that was recognized nationally by the industry as the most significant work in the asphalt area for 1992. As a result of these efforts, State DOT inspection procedures relative to producing a higher quality, longer lasting pavement have been enhanced. The original laboratory has been replaced with a new expanded mobile laboratory. In addition, a second laboratory has been constructed and already used on projects in four States, including a major stone matrix asphalt (SMA) effort.

There has also been further progress in bringing the use of European asphalt technology to the States. In addition to the continued evaluation of the five SMA projects constructed in 1991, 12 additional projects were built in 1992—SMA is an asphalt mixture developed in Germany to provide a rut resistant pavement surface layer. This asphalt mixture has the potential to address a major problem on heavily traveled U.S. highways. A task force has developed a generic specification that fits U.S. construction and bidding techniques. Also, the group was instrumental in the use of domestically produced cellulose in SMA; prior to this, only European produced fibers had been used. The task force also developed the next step of the project—the formal long-term evaluation of the technical aspects and cost effectiveness of the product on various U.S. highways.

A significant accomplishment was the development of a full national quality initiative with the States and industry. Five regional workshops addressing quality were conducted with excellent results. The national seminar for CEOs and four regional seminars for chief engineers and program managers also have been completed. The planning for a decade worth of activities that address the entire quality issue continued aggressively.

STRUCTURES AND SOILS

FHWA and the States are actively pursuing the implementation of comprehensive bridge management systems (BMS). The development of the PONTIS BMS has been completed and program demonstrations, support, and enhancements are being provided to the States. Two major enhancements are under development to provide a transfer of PONTIS condition data to the National Bridge Inventory format and to provide a comprehensive data base of bridge repair and rehabilitation costs. In the meanwhile, American Association of State Highway and Transportation Officials is preparing to solicit the States to license the PONTIS software as an AASHTOWARE product.

Assessment and determination of structural integrity of highway bridges is being addressed by several activities: acoustic emission equipment to detect flaws in steel members before they result in structural failures is being demonstrated; for reinforced concrete structures, the project "Corrosion Detection For Reinforced Concrete Structures" demonstrates the latest concepts and test procedures for corrosion surveys on reinforced concrete structures; and to ensure integrity of underwater elements of bridges, the agenda and materials for two major projects to demonstrate scour monitoring and underwater repair have been developed.

In geotechnical engineering, stability of highway slopes is the focus of two ongoing efforts. A series of workshops aimed at implementing a system for rating hazardous rockfall zones and selecting cost-effective mitigation measures is underway; and a workshop on state-of-the-art technology for analyzing stability of soil slopes has been developed.

SAFETY AND DESIGN

During 1993, advancements were made in transferring new safety and design practices and evaluating hardware and devices for roadside safety. To improve pedestrian and bicycle safety, a new sign material known as fluorescent strong yellow green was evaluated for pedestrian crossing signs. Guidelines were developed for use of fluorescent strong yellow green signs to improve motorist recognition of a crossing area.

The performance evaluations on new highway safety devices continued and were disseminated to the highway community. Evaluations of breakaway timber utility pole hardware allowed this system to be declared operational and ready for routine use as a countermeasure for safely treating hazardous poles that cannot be removed. This advancement presents a new opportunity for private sector manufacturers. Also, a publication on the use of ice detection and weather information systems is in the final stages of completion. Presently, there are more than 25 installations evaluating new highway safety hardware.

As a supporting activity for roadside hardware, an effort to harmonize hardware testing criteria within the international community continued. This effort was initiated with a conference held with European Community representatives in 1991. Obtaining harmonization of testing criteria will enable the marketing of U.S. manufactured hardware devices in the international community.

FHWA, in cooperation with the National Highway Traffic Safety Administration (NHTSA), initiated activities to determine how the Corridor Highway Safety Improvement Program (CSIP) will work with existing Community Traffic Safety Program (CTSP) efforts. As a result of technology transfer efforts, 14 States have initiated CSIP projects. CSIP is designed to reduce severe crashes on high-accident highway arterials using a comprehensive engineering analysis, localized enforcement, enhanced emergency medical services, and public awareness activities. Coupling this with the CTSP approach should reduce deaths, injuries, and economic cost of traffic accidents even further by involving the local community in analyzing the problem and developing programs to target problem areas. CSIP presentations have been made in 26 locations to date with other jurisdictions expressing interest.

Pavement marking and sign retroreflectivity provide nighttime visibility for drivers and is recognized by highway departments as essential for highway safety. A multi-year effort on evaluating retroreflectivity equipment with the goal of developing guidelines for signs and pavement markings was initiated in 1993. This test and evaluation project will stimulate a new industry for manufacturing of retroreflective equipment.

In 1993, three public workshops were conducted around the country to obtain the expertise of academia, industry, and government in developing a framework for safety management principles that will incorporate safety into all aspects of agencies activities and projects. Planning was started for a 1-day national conference to educate the highway community on safety management.

Also started in 1993 were improved outreach efforts for highway safety. By better educating and informing highway users of their role for improved highway safety, attitudes and driver actions can be modified. An effort to improve compliance with traffic control devices with an initial focus on traffic signals was outlined and a pilot safety campaign was initiated in a metropolitan area. After evaluation and refinement, the campaign will be initiated at other locations. An outreach project for improved pedestrian safety was started jointly with NHTSA. A Technical Working Group was formed to assist in the development of a comprehensive community-based pedestrian safety program to be used in States and localities. The model concept was promoted to key State officials such as State pedestrian program coordinators.

Two significant efforts were begun in cooperation with the Office of Motor Carriers in the area of motor carrier safety. A Train-the-Trainer course was developed and technical assistance established to train State and local police agencies on the proper procedures for collecting standard truck accident data elements. In addition, an innovative training alternative, Compact Disk-Interactive (CD-I) was introduced and is being used to provide an interactive, State-of-the-art, computer-assisted training aid. The second effort was the establishment of a project to evaluate automated Brake Testing technology for commercial motor vehicles. This technology could rapidly determine brake condition that will assist in keeping unsafe vehicles off the road. This effort should stimulate a new industry to manufacture such products.

TRAFFIC AND MOTOR CARRIER
A new module display and hands-on effort has been initiated for a 2-day demonstration of advanced traffic control equipment and software. This project was pilot tested; the core element of this project is a 60-foot tractor/trailer fully instrumented with state-of-the-art technology for controlling traffic at intersections. This is a public/private partnership between the FHWA and 24 manufacturers and traffic systems software firms.

The project will tour the States and urban jurisdictions over the next 2 to 3 years. This is the largest demonstration of intersection control technology ever assembled in a mobile exhibit.

The Automated Traffic/Truck Weight Monitoring Equipment (Weigh-In-Motion) project, which toured the United States for the past 3 years was concluded with the completion of the Fifth National Conference on Traffic Data Acquisition. A total of 42 States and over 1,200 participants were exposed to this technology.

The *Communications Handbook* which will be a national guide in the practices of communications for traffic control has been completed. The handbook will guide decisionmakers in selecting the most cost-effective alternatives for efficient data communications between field installations and central control sites.

Other accomplishments include a 2-day workshop to demonstrate the concepts and techniques of incident management. This project has been presented to 20 States and 700 participants thus far. Institutional issues have been addressed and progress has been made in bringing together fire, police, emergency medical and other agencies into incident management teams to deal more effectively with detection, response, and removal of incidents on freeways and urban arterials.

A new edition of the Traffic Control Systems/Intelligent Vehicle-Highways Handbook was initiated as a compendium of the latest available technology to guide decisionmakers in evaluating and selecting advanced traffic control systems to reduce urban congestion and to improve safety.

Technical services have been procured from a national laboratory to provide assistance and support in developing technology transfer projects to support the traffic and motor carrier program. These resources will improve the effectiveness of managing the technology applications process.

In further applications of technology to relieve traffic congestion, a number of activities have been initiated, including in 1993 a traffic signal manufacturers' symposium, a project to develop congestion management system prototypes, procedures to develop public-private partnerships for enhanced traffic engineering, impacts and costs of traffic control system improvements, and methods of integrating traffic management techniques into operational practices.

The mobile demonstration of Geographical Information Systems/Video Imagery has continued to be operational; presentations were made in 14 States to more than 500 participants throughout the United States.

Procurement of technical services has been accomplished for the development and presentation of the Advanced Traffic Signal Controller Training Course and video. The training course and the videotape will provide guidance to managers in making a selection of the type of traffic signal controller best suited for their particular needs.

The Traffic Detector Videotape Training course and companion manual that were completed in 1992 were reproduced and distributed. In addition, a videotape on transient protection, grounding, and shielding of electronic traffic control equipment was completed and distributed.

TECHNOLOGY ASSESSMENT
Technology assessments were initiated in the following areas to determine the development status and appropriate levels of deployment promotion: expert systems for highway applications; robotics for inspection and maintenance, European soil nailing techniques, and Japanese traveler information systems. Market penetration (current deployment levels) and user needs assessments were initiated for hot recycling of asphalt pavements, congestion, and other management systems.

Innovative mechanisms are being evaluated for enhancing the agency's technology transfer activities. These include the use of computer-assisted training approaches and the distribution of technical information through CD-ROM. In addition, a study was initiated to identify, describe, and analyze the barriers associated with the transfer of new and innovative technology.

Over 100 expert systems developed by the highway community and academia were reviewed and from among them 23 systems that are beneficial to the highway community and FHWA were identified.

Four systems were evaluated and tested and two are being distributed to FHWA's field offices and the State DOTs.

A "Robotics for Road Construction, Maintenance, and Operations" workshop brought together experts from the Government, industry, contractors, and academia to discuss the prospective use of automation/robotics in road construction and maintenance. The workshop provided technology developers valuable insight through input from users.

Participated in 43 expositions of technologies to exhibit, showcase, and promote the latest developments in highway technology, including those developed under SHRP. Among these were two major exhibits held at the Transportation Research Board (TRB) Annual Meeting and at CONEXPO 93, where the FHWA/SHRP displays were visited by over 13,000 professionals. FHWA/SHRP technology was also demonstrated and exhibited at the Pacific Rim Transtech Conference in Seattle, Washington, during July 1993, to leaders, administrators and engineers from 37 countries and 43 states. Another major 1993 activity was FHWA's exhibit at the International Road Federation's World Congress in Madrid, Spain. Organized around the theme, "U.S.A. Highways, New Opportunities, New World Partnerships," the display featured large photographic murals illustrating the most current and innovative technology available in the areas of safety, structures, traffic, environment, and construction.

PROGRAM SUPPORT
Market and promotion activities and products have been initiated for previously unidentified and non-traditional clients. Technology marketing efforts will include a better segmentation of the market for highway technology for enhanced effectiveness.

The OTA played a key role in the FHWA's cosponsorship of the Pacific Rim Transportation Technology Conference. With the

Washington State Department of Transportation as cosponsor, this conference assembled more than 1,200 representatives from the United States, Canada, Japan, and other Pacific Rim countries to explore successful and advanced transportation programs and technology.

A process for the systematic identification of emerging technologies for highway applications was developed. Also, a review of the technology transfer program was undertaken. Both efforts will be used to enhance the agency's technology transfer program to better address the changing challenges of the industry.

The OTA participated with the Office of Environment and Planning in identifying directions for establishing priorities for intermodal projects within the context of metropolitan and statewide planning.

In the overall design of the Technology Transfer Program, FHWA program offices and field offices as well as technology transfer offices were enlisted in the outreach process to ensure that new technology and innovations get into the hands of the users as quickly as possible. Staff in the FHWA field offices are in continual contact with the State transportation agencies. Funds have been provided to the FHWA's regions and divisions for a variety of technology transfer functions. Among the activities carried out using these funds were a Structural Steel Painting Conference; workshops related to SHRP's asphalt binder test equipment; technical guidance on fiber optics communications design for traffic management systems; support for SHRP activities; support for the National Quality Initiative; support for IVHS initiatives and seminars; an Incident Management Coalition Conference; traffic control systems quality assurance activities; a Concrete Pavement Seminar; Workshops on Crumb Rubber Modifier for Asphalt Pavements; training for the PONTIS bridge management system; other technological areas; and, in general, allowing the field offices to reach out further into the highway community in their technology transfer efforts.

Support services contracts were continued to ensure a broader scope of capability in deploying technology throughout the highway community. Editorial and publishing efforts ensured the dissemination of technical material to define new technologies and innovations for users and to assist these users in the use and operation of the technologies and innovations. Marketing services provided professional market analysis and marketing and promotion plans for technologies and programs. Through support services contracts the FHWA is able to facilitate the interaction of the public and private sector elements of the highway community to assess, identify, define, and promote technologies, advancing the technical program and ensuring a concentrated and expeditious deployment of the technologies.

In support of its SHRP Implementation Program and as part of the agency-wide transition from the research program to the implementation effort, contractor assistance is used to continue the creation and publishing of the SHRP's monthly newsletter *Focus,* the periodic *Product Alerts,* and technical publications.

Also under the support services contract efforts, speakers and technical personnel publicized research results and products at local, State, and national conferences and technical exhibits.

PLANNED ACCOMPLISHMENTS FOR FISCAL YEAR 1994

ROADWAY APPLICATIONS

In fiscal year 1994, the evaluation, transfer, and implementation of innovative technologies with both the private sector and our State highway agency partners will continue at a steady pace. The areas that offer the most potential to improve the durability, efficiency, and quality of roadways include asphalt materials, concrete materials, performance-related specifications, and quality management.

Field demonstrations and technical assistance provided through two fully equipped mobile asphalt laboratories will continue. This initiative affords the State highway agencies the opportunity to see first hand innovative test equipment and to discuss asphalt mix design details with fully qualified technicians and engineers. More importantly, they will be able to see innovative procedures applied at an active asphalt plant on a mix they are developing and evaluating. Along with the mobile laboratory, regional workshops, evaluation funds, videotapes, and training manuals will continue to be made available. A 2-day workshop, which is an integral part of this project, will be expanded to further address the needs for strengthening skills of State highway agency technicians and engineers in the asphalt mix area. This continually expanding effort will allow our partners to bring state-of-the-art technology into practice at an accelerated rate.

As an innovative solution to asphalt pavement rutting, Stone Matrix Asphalt (SMA) demonstrations will continue aggressively. Technical assistance continues to the nearly 20 States involved in SMA projects. Experimental sections were built in 1992-1993 as part of SHRP special pavement field studies. This year a report discussing 3 years of performance for the existing projects will be initiated. Research efforts on optimizing SMA design and materials selection are being conducted jointly within FHWA, State DOTs, and industry and are being augmented by a National Cooperative Highway Research Program (NCHRP) study in this area.

The activities of the mobile concrete trailer will continue in several important areas, and be expanded to further address needs of the State highway agencies. Many activities in the concrete area will continue to be in partnership with the industry. Of major significance will be the promotion of innovative admixtures as solutions to hot, cold, and short time concrete placement issues.

Concrete materials initiatives will continue to demonstrate the use of innovative laboratory and in situ testing equipment and promote the use of high performance concrete. Because the equipment loan program has proven to be a very effective method of transferring the use of innovative equipment to the States, this program will be expanded, through additional equipment purchases.

Non-destructive testing (NDT) is a spin-off of the basic mobile concrete laboratory project. This project will provide a hands--on workshop and an equipment loan program that will accelerate the use of NDT equipment currently in use in the mobile laboratory. These workshops will continue for several years depending on the level of interest of the States. Initiatives to start a national certification program in this type of testing will be underway.

Initiatives to demonstrate and implement high performance shotcrete technology will be underway. Highway performance shotcrete can be used for bridge rehabilitation, soil nailing wall facings, and tunnels. European concrete pavement technology will be demonstrated by constructing test projects in Michigan and in other States.

Many facets of performance-related concrete specifications are being evaluated. Interim specifications have been developed and longer range concepts are being considered by many States. Concrete laboratory support will continue as these specifications are developed and implemented. This project will be integrated with the quality initiative and will implement some of the principles promoted in that effort, especially in the areas of testing, inspection, and contractor process control. In addition, this project will promote more effective use of the private sector's ability to manage and build a quality highway facility.

The emphasis on quality management remains an issue of national significance. This project will provide for national direction, addressing a broader role for quality in the highway environment. It will include several training and technology transfer opportunities. State level quality workshops will be encouraged by providing States with a toolbox of resources to establish local steering committees and implementing continuous quality improvement activities. Training courses will cover statistics and quality control techniques and will include 2-day and 5-day modules. These courses will be available throughout the next fiscal year. Through these partnerships with the public and private sectors, innovative technology will be implemented to improve the quality and efficiency of our highway systems.

STRUCTURES AND SOILS

The load and resistance factor design (LRFD) method, recently included in AASHTO bridge specifications, represents a radical departure from the traditional design philosophy of Working Stress Design (WSD) which requires that the total stress caused by all design loads be less than a specified percentage of the bridge material's stress limit. In order to promote the early acceptance of the new specifications, a 5-day workshop has been developed to provide bridge engineers with practical skills in applying the new specifications; it will be delivered during 1994 to the States.

Ground improvement methods have provided opportunities to solve difficult highway construction problems with innovative, cost-effective technologies. Three separate workshop series have been developed to provide geotechnical engineers with the expertise to properly select, design and construct facilities using mechanically stabilized earth (MSE) walls, soil nail walls and other proven ground improvement techniques. Implementation of two new computer programs developed for design and analysis of MSE walls and reinforced soil slopes will be included in the workshops. Follow-up technical assistance will be available to States planning to incorporate these techniques in their highway or bridge construction projects.

Recent revisions to electroslag welding (ESW) procedures have resulted in greatly increased quality of finished welds; proper techniques will be promoted in a combined classroom presentation and fabrication shop demonstration of ESW welding techniques. ESW is a welding technique which is particularly suited to fabrication of thick structural steel members and can provide considerable economies during fabrication.

Technology for design and construction of deep foundations has improved dramatically in the last decade, with many of the advances associated with activities conducted under the demonstration project "Pile Foundations." To showcase the developments, an international conference on innovative technology for deep foundations will be held in Orlando, Florida, in December 1994.

SAFETY AND DESIGN

The application of safety and design technologies will again grow from fiscal year 1993 to fiscal year 1994. New safety and design practices, hardware devices and tests will become available for application. Such items need inservice test and evaluation. In particular, new guiderail end terminals and attenuators will be ready for application.

Inservice testing of new retroreflectometer devices should be well underway and devices available for inservice trials. Multiple devices will be procured for rapid evaluation and tested in coordination with State DOTs. These devices will allow reflectivity/visibility guidelines to be established for traffic control devices and will enhance positive guidance capabilities.

To address a growing safety issue, red light running, hardware to discourage the practice will be evaluated for deployment to improve safety at intersections.

Technical summaries, synthesis reports, and training materials will continue to be developed and workshops and seminars for marketing and technology transfer will be held as needed. For example, the breakaway timber utility pole will be promoted as a countermeasure to enhance roadside safety.

Efforts for emerging safety emphasis programs will also grow. The promotion of community based pedestrian safety programs will continue, and more technical assistance and cost sharing for start-up and evaluation will be provided to State and local agencies. Also, the promotion of Safety Management Systems mandated by the ISTEA of 1991 should be in full operation following a national conference as well as selected trials receiving special evaluation funding.

The promotional phase of the Corridor Safety Improvement Program (CSIP), a joint NHTSA-FHWA initiative designed to address severe accident problems on arterial corridors, will be completed. This comprehensive approach involving engineering, enforcement, and public awareness to reduce accidents and injuries will have been presented to over 35 States. More than 20 pilot corridors will be under evaluation to quantify effectiveness. More will be initiated as prior successes become apparent.

After being initiated in 1993, outreach and national safety campaign activities will be in the public eye. FHWA's efforts to change driver attitudes and achieve improved compliance with traffic control devices will be implemented in various geographic regions. Public relations techniques with education and enforcement components will tackle this traffic safety issue.

Motor carrier safety technology is emerging on a larger scale than ever before; however, reaching the varied types of operators—from large corporations and their drivers to single unit owner/operators—is extremely difficult. Also, a large portion of the enforcement community does not have the most current information related to truck safety. Improved marketing methods that can reach both the broad spectrum of commercial vehicle operators and the enforcement sector with the latest safety information will be completed and available for use. Also, blood alcohol content (BAC) training will be provided to judges and police officers to inform them of the importance of the low BAC levels established by regulation for commercial vehicle operators. In addition, new techniques for identifying low BAC levels will be provided to the enforcement community.

The National Governors' Association's common truck accident data elements are necessary for meaningful truck accident analysis. Training for the entire enforcement community, which began in 1993, on collection of this essential data will be continued both in the classroom and via satellite television. State-of-the-art Compact Disk-Interactive (CD-I), an interactive computer-assisted training technology, will be used to help reach the vast number of enforcement agencies.

A project will be initiated to develop an accident data collection system for police vehicles, interfacing several pieces of high-technology equipment. This will address the need for more accurate information in a short timeframe to support such activities as safety management.

TRAFFIC AND MOTOR CARRIER

The Traffic and Motor Carrier technology applications program will continue to advance new projects in the following categories: Intelligent Traffic Control Systems, Command and Control Software for Traffic Signal Operations, Incident

Management, Congestion Management, Demand Management, Traffic Signal Simulation and Optimization, Geographical and Highway Information Systems, Global Positioning Systems, and Motor Carrier Operations. New technology produced by projects in these categories will be promoted through an array of innovative techniques to accelerate rapid acceptance and implementation by highway agencies. As Intelligent Vehicle-Highway Systems (IVHS) continue to mature during this decade, a large influx of new traffic and motor carrier technologies will become operational and will be in need of immediate promotion and implementation.

Technical information sources will be developed during 1994, including the Traffic Control Systems/IVHS Handbook, which will be completed and distributed to highway users nationwide; and advanced traffic sensors and diagnostic equipment, which will continue to be field tested and evaluated. National seminars on Integrated Highway Information Systems will continue during the year.

The mobile demonstration efforts with Geographical Information Systems, Video Imagery, and advanced traffic control technologies will continue to be operational, making presentations throughout the United States. As new technology evolves from public and private sources, it will be folded into these efforts to keep presentations on the cutting edge.

TECHNOLOGY ASSESSMENT

In response to the enhanced Federal research and development program, the assessment and packaging of the resultant products will be increased. Major efforts to identify and assess new and innovative highway technology originating from the domestic highway industry—State and local highway agencies, and the private sector—will be continued in full force. This is an expanded effort to accelerate and more broadly disseminate information on beneficial innovations that are developed locally, within a State, or by the private sector.

International efforts, in cooperation with the Office of International Programs, will include the support of international conferences and participation in international technical committees and technology scanning/study trips abroad. This coordination is to ensure that technologies identified from abroad are adopted smoothly for incorporation into the domestic technology assessment and deployment program.

Indepth scanning of universities and State highway agencies will identify and assess highway-related technologies to determine appropriate ones for further evaluation and promotion. Contacts initiated with universities and States will be expanded in 1994 to add 5 more universities and 15 more States.

Preliminary products of these technology scanning efforts will be fully assessed and packaged for promotion and deployment to the U.S. highway community. Candidate products involve bridge technology, geotechnology, contracting practices, legal barriers to innovation, safety, robotics, and financing of highways.

The study to analyze the barriers to technology transfer in the highway community will be completed. The final report will help enhance and broaden FHWA's technology transfer activities.

PROGRAM SUPPORT
Continuing marketing and promotion activities and products defined through market analyses will be geared to previously unidentified and nontraditional clients. Technology marketing efforts will include a better segmentation of the market for highway technology for enhanced effectiveness.

As the FHWA mission shifts to one more focused on technical expertise and technology transfer, new roles and responsibilities for the field organization will be developed and supported through new mechanisms, products, and technical training. This represents a scaling up of technology assessment and deployment activities to support the vision and challenges faced by FHWA. As part of this overall effort, funding assistance to the regional offices will continue to be expanded, enlisting their efforts in bringing technology to the States and others across the country.

Support services contracts will be continued to ensure a broader scope of capability in deploying technology throughout the highway community—through publications, using paper copies and electronic media (e.g., computer disks, CD-ROM, etc); technical working groups; mobile laboratory technical staffs; and other means available to ensure the continued successful deployment of new technologies. Marketing services will provide professional market analysis and marketing and promotion plans for technologies and programs.

Also under the support services contract efforts, speakers and technical personnel will publicize research results and products at local, State, and national conferences and technical exhibits. Editorial/publication support will be enlisted to ensure the timely writing, editing, design, and publishing of technical and other publications in support of the marketing of technology. Panels of Federal and non-Federal experts will be convened to address and facilitate the advancement of the technical program, ensuring a concentrated and expeditious assessment and deployment of technology.

The OTA will participate in over 35 conferences to exhibit, showcase, and promote the latest developments in highway technology, including those developed by the SHRP. Among these conferences are the AASHTO Annual Meeting, the TRB Annual Meeting, and AASHTO Regional Meetings.

PLANNED ACTIVITIES FOR FISCAL YEAR 1995

ROADWAY APPLICATIONS

All major projects initiated in fiscal years 1993 and 1994 will be in an active demonstration and promotional phase in fiscal year 1995. Several new starts will emerge. Pavement management technologies will be expanded to explore new equipment and measuring techniques. Activities will be initiated to document the condition of every mile of the Interstate Highway System.

The National Quality Initiative will move to another phase with the development of a long-range strategic plan for national continuity and State continuous improvement programs.

STRUCTURES AND SOILS

Evaluating and ensuring the integrity of underwater bridge foundations will be addressed in a pair of complementary projects which will be underway: "Scour Monitoring and Instrumentation" will demonstrate the latest hardware and methods for monitoring scour at highway bridges and will promote field trials of scour monitoring equipment by the States; in a parallel effort, "Underwater Evaluation and Repair of Bridge Components" will demonstrate a full range of technology for evaluating distress at underwater foundation elements and cost-effective measures for underwater repair.

In 1995 most States will be meeting the ISTEA requirements for implementing a bridge management system. To assist the States to incorporate a full range of bridge management principles in the routine management of bridge programs, OTA and the FHWA's National Highway Institute will develop and present a series of workshops on bridge management for State highway bridge engineers and managers. In addition, training will be provided to bridge inspectors who are assigned to collect bridge condition data in a format suitable for bridge management systems.

Efforts will continue to advance the state-of-the-practice of foundation engineering for highway bridges by providing an updated version of classroom sessions for the project "Pile Foundations" and a by presenting a newly developed workshop on Load and Resistance Factor Design (LRFD) of bridge foundations to supplement the earlier training on LRFD of superstructures.

SAFETY AND DESIGN

In addition to continued support for multi-year efforts active in 1994, a substantial increase in highway safety activities will occur. Continued at substantial levels will be safety hardware evaluations, pedestrian safety and safety management system promotions and demonstrations, and outreach initiatives, such as the Safety Campaign for compliance with traffic control devices to be conducted in larger population centers. After being evaluated in 1994, preparations for promotion of enforcement devices that discourage running red lights will be initiated.

Technology transfer of motor carrier safety technologies will continue to increase due to the expansive range of related issues. For example, advances in hazardous materials handling technology will require dissemination throughout the industry. Other items will include driver fatigue countermeasures, automated brake testing technologies, proper use of automatic brake indicators and adjusters, technology to strengthen control of substance abuse and identify driver impairment, and use of on-board computers to assist in accident investigation.

Underlying any successful safety program is the collection and management of safety-related data. Extensive amounts of data are collected annually at a high cost and improvements are needed in its accuracy, timeliness, cost to collect and availability for use. An advanced technology police vehicle using a state-of-the-art accident data collection system will be developed and evaluated in 1995. Equipment such as Global Positioning System, Total Station, Map Matching/Dead Reckoning System, Bar Coding System, Magnetic Stripe, Automatic Vehicle Identification System, Digital Camera, Pen-based computing and Voice Recognition will be showcased nationwide. The target audiences will primarily be enforcement and State DOTs endorsing the technologies, since they will capitalize from and must accommodate advancements in accident record technology.

TRAFFIC AND MOTOR CARRIER
New emphasis will be placed on activities related to Motor Carrier applications. Additional emphasis will focus on activities to provide technical support to the Office of Environment and Planning in providing guidance to State and local agencies responsible for the implementation of congestion management systems.

The mobilization of new demonstration projects for advancing IVHS technologies that have become operational and in need of deployment will be initiated in addition to other activity related to the promotion and advancement of IVHS.

The Traffic and Motor Carriers Technology Applications Program will continue to promote technology transfer projects in the following categories: IVHS, Advanced Traffic Operations and Management Applications, Incident Management, Congestion Management, Demand Management, Traffic Signal Simulation and Optimization, Geographical and Highway Information Systems, Global Positioning, Real Time Traffic Adaptive Control of Traffic Integrated Traffic Management Systems and Motor Carrier Operations.

Existing mobile demonstrations on traffic control equipment and software will continue and will be enhanced as new and improved technology becomes ready for deployment. Presentations of the Advanced Traffic Signal Controller Training Course and video will begin. The project "Geographical Information Systems/Video Imagery" will conclude its nationwide presentations. The project

"Relieving Traffic Congestion Through Incident Management " will conclude its nationwide presentations.

TECHNOLOGY ASSESSMENT

The indepth scanning of universities and State highway agencies to identify and assess highway-related technologies for further evaluation and promotion will potentially add five more universities to the 10 from 1994 and 15 other agencies to the 30 from 1993. Technologies and methodologies identified through this process will be vigorously evaluated, and if appropriate, packaged for deployment. Scanning and assessing of foreign technologies will continue from 1994. Candidate technologies may fall within the areas of intermodal transportation, urban transportation, and environment, among others.

The results of previous studies that segmented the highway community and identified non-traditional partners will be used to package technical information and produce tools targeted for the range of audiences that need to consider the technologies being deployed.

Speakers and technical personnel will publicize research results and products from the SHRP and other programs at conferences and technical exhibits. Technical information and performance data on IVHS case studies, and the various management systems will be packaged and disseminated through diverse channels and mechanisms to promote the adoption of the beneficial innovations.

The OTA also will continue and expand its marketing plan to showcase and promote new highway technologies, including those developed by the SHRP. This will be accomplished by exhibiting highway products at all major national and international professional meetings and conferences.

Scanning will continue for new and innovative highway technology projects to encompass all 50 States and Puerto Rico and expand it to include international technologies. The OTA also will continue and expand its marketing plan to showcase and promote new highway technologies, including those developed by the SHRP. This will be accomplished by exhibiting highway products at all major national and international professional meetings and conferences.

PROGRAM SUPPORT

Support contracts will continue for marketing services; identification and assessment of innovations; speakers' bureau and exhibit assistance; editorial; publishing; and technical panel meetings.

Participation by FHWA field offices will continue to be critical to the success of the technology assessment and deployment program. As more products are made ready for deployment, field staff expertise will be expanded further to ensure the timely adoption of these new technologies. Funding assistance to these offices will continue and be expanded so they may carry out their efforts in bringing technology to the States and others across the country. Support will also continue in providing the needed technical training and various marketing products to support the field staff's technology assessment and deployment activities.

FHWA will establish a core office as a resource for marketing techniques and practices for regional and division offices to call upon. The core office will work with the field offices to create marketing plans for technologies they have identified as useful for the State and local highway agencies within their sphere of operations. Documentation will be produced on how to design effective strategic outreach programs from marketing plans. Marketing plans that have been developed will be compiled from regional, division, and State offices, to be included in a synthesis of marketing activities in the highway community. Through this exchange of information and the core office's assistance, partnerships and the marketing capabilities and effectiveness of FHWA field offices and the highway community in general will be expanded.

During this time, approaches to marketing will be assessed, particularly computer media (e.g., CD-ROM, interactive training programs, databases, marketing plan software packages, etc.) to increase the ability to respond to the need for marketing new technologies and to provide a broader and more effective collection of tools for FHWA's field offices.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
E. LOCAL TECHNICAL ASSISTANCE PROGRAM	$500	$5,105	+$4,605

BACKGROUND

The Local Technical Assistance Program (LTAP), formerly the Rural Technical Assistance Program (RTAP), serves as the primary channel through which innovative transportation technology is prepared and delivered to both urban and rural local communities in the United States and to American Indian tribal governments. Since 1982, a network of Technology Transfer Centers has been established to work with local transportation agencies in addressing their specific transportation goals and to present new transportation technology and product alternatives to meet those goals. The number of centers has grown from an initial 10 centers to a current 55. There are now centers in each State, one in Puerto Rico, and four centers to provide transportation technology transfer to American Indian tribal governments.

Funding for the operation of the centers to reach both urban and rural customers and American Indians accounts for the major portion of the LTAP budget. The base level of funding for the 51 technology transfer centers was increased in 1992 from $100,000 to $110,000 in 1993. The State and local governments continue to supplement the Federal funds with local resources.

Beginning in 1993, technology transfer services were also provided to American Indian tribal governments with the establishment of four centers to specifically address their needs. Funding for the development and operation of these centers is provided by the Federal Highway Administration (FHWA) and the Bureau of Indian Affairs (BIA) of the Department of the Interior. These centers are 100 percent federally funded.

LTAP receives overwhelming support from the American Association of State Highway and Transportation Officials, the National Association of County Engineers, the American Public Works Association, and the National Association of Towns and Townships.

OBJECTIVES AND APPROACH

The objective of LTAP is to improve roads and bridges and increase transportation safety awareness by increasing transportation expertise at the local and tribal level, and promoting the effective use of private, local, and State resources for transportation.

The LTAP approach is a program of training and technical assistance geared to local and tribal engineers, technicians, and government officials. In order to respond to the increasing demand for new highway technology in rural and urban areas, special technical products have been developed and assistance provided specifically structured for local highway agencies. These products and assistance are available through the nationwide network of Technology Transfer Centers.

With the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the FHWA received the authority to expand the rural program to provide increased technical assistance and the transfer of usable modern highway technology to urban areas in States with two or more urbanized areas of 50,000 to 1,000,000 population to help address their road-related needs.

Under the ISTEA, the FHWA was required to establish a minimum of two centers to provide technical assistance to American Indian tribal governments on intergovernmental transportation planning and project selection, and tourism recreation travel. FHWA and the BIA have established four new centers to provide technology transfer services to American Indians.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

In 1993, there were five new centers, one in Minnesota and four centers to serve the needs of American Indians. The following list reflects the locations and the coverage of the centers serving American Indians:

1. Technology Transfer and Training (T^3) for Native Americans
   Colorado State University
   Fort Collins, Colorado 80523
   Area of Coverage: Colorado, Utah, New Mexico, and Arizona

2. Northwest Tribal Rural Technical Assistance Program
   Eastern Washington University, MS-10
   Department of Urban and Regional Planning
   Cheney, Washington 99004
   Area of Coverage: Washington, Oregon, and Idaho

3. Regional Indian Technology Transfer Center
   Montana State University
   Local Technical Assistance Program
   Department of Civil/Agricultural Engineering
   Bozeman, Montana 59717
   Area of Coverage: Montana, Wyoming, North Dakota, and South Dakota

4. Technology Transfer Center for American Indian Tribal Governments in the Eastern United States
   Michigan Technological University
   Michigan Transportation Technology Transfer Center
   Civil and Environmental Engineering Department
   Houghton, Michigan 49931
   Area of Coverage: East of the Mississippi River

Specific accomplishments at the 55 centers included the following:

- Through March 1991, over 250 training courses were conducted to assist local agency employees obtain a Commercial Drivers License (CDL). The Centers provided over 1,400 CDL training videotapes, over 60 roadshows (demonstrations of the new CDL requirements by way of videotapes and practice tests brought to the local community), and 90 articles in newsletters about the new CDL requirements. The CDL requirement went into effect on April 1, 1992.

- Training courses are the major technology transfer tool used by the network of centers. In 1993, LTAP centers offered 1,700 training courses with a total attendance of over 57,200. The centers also offered over 700 "roadshows" or circuit rider sessions (on-site demonstrations of new technology) in 1993 with a total attendance of 11,200.

- The technology transfer centers provided over 118,000 technical publications to local agencies in 1993. They also maintained videotape libraries with a total of over 10,000 videotapes on hand to loan to local agencies. Personnel in local agencies borrowed over 120,000 videotapes from the centers in 1993.

- The centers mailed their quarterly newsletters to over 143,000 contacts in 1993.

- Although many of the benefits of the technology transfer program are not monetarily quantifiable, participants in training programs have given some indication of potential savings from using the training and new technology.

    - In 1991, workshop participants at the Cornell Local Roads Program (New York) estimated the total cost of attending the training programs at $21,960, but estimated their savings at $2,081,545 as a result of attending the training.

    - The Baystate Roads Program in Massachusetts routinely distributes an evaluation to every attendee at the end of each workshop. Respondents typically report an anticipated cost savings from attending the workshops in the range of a couple of hundred dollars to several thousands of dollars.

    - As a result of the Kansas technology transfer center's program on tort liability and signing, several cities and counties in Kansas have made changes in their signing policies. Several counties have significantly increased their attendance at the liability and signing courses and are now better able to respond to lawsuits.

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Many technical-type materials, reports, and videotapes were developed and distributed to the centers. The development of training courses for both urban and rural audiences was initiated.

Also funded in support of the centers was a national clearinghouse for training courses, videotapes, and technical products. In support of the network of Centers, the clearinghouse prepares a bimonthly newsletter to promote information exchange among the centers. The clearinghouse also prepares a catalog of training and technology resources, and maintains a videotape library. The clearinghouse also prepared a strategic plan for FHWA for the LTAP in conjunction with the LTAP centers and related partners. The FHWA also funded the development of a study and report documenting the accomplishments and benefits of the LTAP.

New procurements for LTAP products were initiated in 1993. Among the new products were pavement management system products for local governments; a training videotape on contract paving inspection for local personnel; a training manual and training material on common problems with aggregate surface roads; a training videotape on chip seal construction; a risk management manual for local agencies; a traffic safety course and field guide for local officials; and a training videotape of traffic sign installation, hardware, and inspection.

An effort was also initiated in 1993 to promote SHRP products to local agencies.

In addition, FHWA continued the development of new products for the LTAP centers and their clients. FHWA requested ideas for needed products from the center directors, and FHWA and State highway agency personnel and worked with technology transfer center directors and staff to identify the high priority needs and develop statements of work for follow-on contracts to develop the products.

PLANNED ACCOMPLISHMENTS FOR FY 1994

The 55 centers will publish quarterly newsletters and make technical materials, e.g., manuals, training courses, videotapes, and brochures available on request. With the increased number of centers and the expansion into urban areas and tribal governments, an increased number of people are expected to be trained and the number of requests for technical materials is also expected to increase.

With the authority under the ISTEA of 1991 to expand into urban areas, many of the centers have identified their urban clients and also needed products and services for their urban audience.

FHWA has coordinated with the BIA to provide transportation technical assistance to the American Indian tribal governments. The four centers established to provide technology transfer services to the American Indian tribal governments will begin to offer courses and technical assistance to tribal governments. These centers will be encouraged to coordinate their activities with the Native American Colleges and Universities. The centers have the added emphasis of providing training on tourism and recreational travel. Special products needed for the technology transfer efforts for the American Indian tribal governments will be identified and product development initiated.

FHWA will work with its partners in local agencies to identify relevant products for local highway agencies from the SHRP and prioritize, package, and deliver these products to the technology transfer centers. Many of the new technology items identified by the Strategic Highway Research Program (SHRP) will be of interest to the LTAP community, such as pavement maintenance techniques, snow fence technology, and new work zone devices to improve safety.

New products under development will be distributed to the centers as they become available.

PLANNED ACTIVITIES AND ACCOMPLISHMENTS FOR FISCAL YEAR 1995

In fiscal year 1995, activities brought on line during previous years will continue to be delivered to the Technology Transfer Centers. As in recent years, the bulk of the funding will be used to operate the 55 Technology Transfer Centers, the delivery arm for the program. Remaining funds will be used to fund administrative support activities such as the national clearinghouse and new products specifically for local government agencies and American Indian tribal governments and to develop products for the tribal governments.

The ISTEA of 1991 provided for technology transfer involvement in some urban areas (500,000 to 1 million population) through the LTAP. The program will help to identify audiences and needed products for these urban areas. Increased funding is necessary to develop products and enable technology transfer centers to deliver the program assistance and benefits to these areas.

FHWA will continue to develop new products for LTAP following a solicitation of needed product ideas from the nationwide network of centers and in conjunction with our partners.

FHWA will continue to actively package and promote relevant products from the SHRP for the local agencies. The SHRP products of particular relevance to local agencies will be packaged and marketed to local agencies and tribal governments. Some of the SHRP products include performance guidelines for improved materials and procedures for potholes, spalls, crack sealing/filling and join resealing repairs which will be developed into training packages. The LTAP technology transfer centers will be ready to use these training packages as they become available.

Activities in 1992 through 1994 for the centers servicing American Indian Tribal Governments (including the establishment of four centers in 1993) will need increased funding to expand the level of service to this audience and to enhance the delivery efforts related to this element of the LTAP.

Of the requested amount for LTAP, $500,000 will be used to support the Department of Transportation's participation in the National Rural Development Initiative including supporting the operation of the regional Federal State Rural Development Councils. The LTAP will seek ways to improve coordination with other Federal agencies and help achieve cooperation with the States, localities, tribal governments, and the private sector.

	AUTHORIZATION/OBLIGATION LEVEL		
	FY 1994	FY 1995	CHANGE
F. NATIONAL HIGHWAY INSTITUTE	$4,500	$5,500	+$1,000

BACKGROUND

The National Highway Institute (NHI) is vigorously responding to its expanded role as defined by the Intermodal Surface Transportation Efficiency Act (ISTEA). The ISTEA emphasizes a coordinated transportation system involving all modes working in harmony to move people and goods and improve the nations economic vitality. The NHI's programs have been adjusted to stress these issues. The Federal Transit Administration, the Federal Railroad Administration, the National Highway Traffic Safety Administration, the Federal Aviation Administration, and the Maritime Administration are active partners in the NHI intermodal training programs. In addition a number of other Federal and local government organizations have joined with FHWA to incorporate the latest technology into the training presented to those organizations responsible for the highway transportation in this country. The training that NHI presents addresses the intermodal and economic efficiency issues embodied in the new legislation and more. Training provided by NHI is carefully selected and is not available elsewhere. The majority of the courses teach how to use the newest and most advanced technology to provide an efficient and cost-effective transportation system. The ISTEA also expands NHI's responsibilities to provide training for the private sector and the international highway transportation community. New programs have been developed in each of these areas and training is being presented to these new partners.

OBJECTIVES AND APPROACH

The NHI has structured its programs to fill two important needs for the public sector. The first is to continue with short course training on an array of specialized highway technical topics. These are generally delivered on site to the State and local highway agency employees. The second is to expand the breadth of knowledge of major transportation topics through indepth multiweek education programs directed beyond the standard university curriculum to the practicing highway professional. These are usually presented at NHI's Center for Advanced Technology in Highway Transportation in association with the Turner Fairbank Highway Research Center in Northern Virginia. In addition we are responding to the newer provisions of the ISTEA by establishing programs for the private sector and our international colleagues.

The majority of the public sector highway transportation work force which entered the profession in the late 1950's and early 1960's, is now being replaced with under-trained professionals. Furthermore, the private sector which is assuming a larger role as the public sector down-sizes, is faced with under-skilled workers being brought into the work force without experience or transportation training. In addition, new technology will be causing new "standard operating procedures" to be incorporated into tomorrow's highway. These developments will require new training for the existing work force and the new private sector work force so they can use the new technology. In addressing the private sector needs, the NHI is working through joint task forces involving various transportation industry specialties (National Asphalt Paving Association and American Concrete Pavement Association). Finally, an entirely new area is the training required to implement the IVHS highway program.

The NHI has established training programs that serve the international highway community including show-casing the current engineering practices and U.S. highway technology. An intensive program in transferring US highway technology to the Latin American countries is moving ahead rapidly by offering technical assistance, training, materials, and management skills. And concurrently, we are working with the World Bank to bring training programs to third world countries on highway transportation and the capability of U.S. companies to meet their transportation technology needs.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

The NHI annually emphasizes approximately 85 technical topics in the training it presents to State and local government officials. Important topics have been the assessment of the relative value of alternate designs (value engineering), how to design bridges and protect highway structures from damage due to floods, safety considerations that will reduce the likelihood of a fatality and injury of a motorists that leaves the travel lanes, and planning considerations to ensure a complete integrated and multimodal highway network. The States and local agencies continually advised the NHI that the training they receive has enabled them to improve their efficiency, safety, and economic productivity. Each year from eight to twelve new courses are developed which bring to the highway community the latest technology on some of the critical issues that are challenging highway officials.

PLANNED ACCOMPLISHMENTS FOR FY 1994

Specific courses are being taught to respond to the intermodal emphasis of the ISTEA. These courses address improved access to port facilities and integrated highway and mass transit facilities. In addition NHI is providing its regular short courses more often to satisfy the increased demand by States and local agencies. A new series of comprehensive, multi-week training programs is being developed by NHI to address specific topics for the private and public sector transportation specialist. These programs will emphasize where new technology is making substantial changes in how we plan, design, construct, operate, integrate with other modes, maintain, and administer our

Nation's highway network. These programs will form the basic core of long-term training to be presented through the NHI "Center for Advanced Technology in Highway Transportation." This form of training will also be the major source of upgrading or expanding the expertise of practicing highway specialists in the new disciplines that future highway systems will demand.

The ISTEA makes NHI training available to the international community. The NHI is fulfilling this requirement by working closely with the World Bank and presenting a specially designed training program for third world countries in highway pavements. This training program will showcase United States highway technology and equipment to these international participants. The NHI has also provided the administrative and technical guidance to the Pan American Institute of Highway (PIH). Through this program NHI has provided, to our Latin American neighbors, a catalog of training and technology guidance programs on highway safety materials (signs, energy absorption protective barriers, pavement markings), maintenance management procedures, and highway traffic control computer programs. Short courses and technical visits from the U.S. are in great demand by the Latin American countries. We see these as a direct link to economic cooperation in the highway industry and an opportunity for United States technology to be introduced into Latin America.

PLANNED ACCOMPLISHMENTS FOR FY 1995

The majority of the requested increase is to meet the constantly growing demand both in the United States and with our international partners for NHI short courses and multi-week course presentation. New safety and environmental regulations are generating substantial changes to the transportation process that require both the public transportation official and the private sector builder of the transportation system to seek training to understand the revised or new approaches for highway projects. As a result the demand for training in the new technology approaches is escalating. Many innovations resulting from the $150 million Strategic Highway Research Program (SHRP) will require training programs to encourage and guide their use within the highway community. There are 10 new training efforts planned for products resulting from SHRP.

This funding increase will also support the PIH in the growing international technology exchange of education and training. Through the PIH we can identify highway technology such as, intersection control equipment to improve traffic flow and safety, asphalt technology, materials testing equipment and practices, construction procedures, and equipment maintenance for technology transfer to Latin America. A joint program with the Inter American Development Bank is also being planned.

The NHI is establishing a program to take U.S. highway technology to the countries in eastern Europe and Russia. A portion of the increase funding will be used to present training to highway officials of these countries thereby introducing them to U.S. products, services, techniques, and innovation.

The NHI is continuing to closely watch the changes in learning technology and will evaluate and examine the possibilities for research and innovation in education/training techniques. Unique applications of new learning technology appear to be on the horizon that may be adapted to improve the capability and/or expertise of highway agency personnel inexpensively. Several studies are underway which will form the basis for evaluating innovative instructional tools that can provide "on the spot" guidance and training for solving problems encountered in the field. Developing this technology can be a major factor that will permit the adaptation of the culturally diverse workforce of the nineties into the surface transportation specialists this nation needs.

DISADVANTAGED BUSINESS ENTERPRISE/SUPPORTIVE SERVICES (DBESS)

	(Dollars in Thousands)		
	FY 1994	FY 1995	CHANGE
AUTHORIZATION/OBLIGATION LEVEL	$10,000	$10,000	...

PROGRAM OBJECTIVES

The Disadvantaged Business Enterprise (DBE) supportive services (SS) program provides a variety of services and activities designed to:

- increase the total number of minority and women businesses active in the nation's highway programs, and

- contribute to the growth and eventual self-sufficiency of these businesses so that they may achieve proficiency to compete, on an equal basis, for contracts and subcontracts.

BACKGROUND

Funds for the DBESS program are made available under 23 U.S.C. 140(c) for the State's to develop, conduct, and administer training and assistance programs for minority and women businesses.

All the States have established a DBESS program and implemented procedures to assure that the goals, objectives, and intent of the program are met. Each State's program is tailored to provide the necessary training and special assistance activities designed to meet the needs of the minority and women firms working within their State.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

By the end of FY 1993, approximately $111.8 million will have been obligated nationally by the States to fund SS programs since to the program's inception. The FY 1993 level was $8.0 million. This is considered a minimal level for an adequately operated program.

Special efforts for FY 1993 involved earmarking $0.8 million of FY 1993 funds for the following special priority areas:

- Expanding the Entrepreneurial Development Institute (EDI) program in Region 4. This program is being administered through the use of historically black colleges and universities in a number of southern States. Funding for this project includes $0.5 million carried over from FY 1992's program allotment and $0.5 million set aside from FY 1993's allotment. It is anticipated that a contractor will be selected for the first phase of this effort in June 1993.

- Continue the development and implementation of an enhanced Indian outreach effort on Indian reservations in selected States to assist Indian owned firms to become certified DBE's. Funding for the effort in FY 1993 is set at $0.3 million and has been targeted for all FHWA Regions. It is noted that $0.5 million was set aside for this effort in FY 1992.

PLANNED ACCOMPLISHMENTS FOR FY 1994

To accomplish the DBESS program objectives in FY 1994, FHWA plans to allocate to the States, at the maximum $10.0 million (i.e. the maximum level established by law (23 U.S.C. 140 (c)). This allocation will fund SS activities designed to improve the short and long term technical, managerial, and financial development of minority and women businesses in order for them to become viable business firms that are capable of effectively competing for contracts and subcontracts. This planned expanded 25% funding effort will permit the States to increase their levels of service to meet the demands of a larger Federal-aid program created under ISTEA.

PLANNED ACCOMPLISHMENTS FOR FY 1995

In FY 1995, FHWA proposes to maintain funding at the maximum $10 million level. This will allow FHWA to continue/maintain the 1994 SS program. Overall, this allocation of $10 million will continue to fund SS activities designed to improve the short and long term technical, managerial and financial development of minority and women owned businesses desiring to participate in the Federal-aid highway program.

SUPPORT FOR INTERNATIONAL TRANSPORTATION ACTIVITIES

	(Dollars in Thousands) FY 1994	FY 1995	CHANGE
AUTHORIZATION/OBLIGATION LEVEL	$400	$800	+$400

BACKGROUND

The Federal Highway Administration has been active internationally for many decades. The International Highway Transportation Outreach Program was established to enhance U.S. technology, to improve the U.S. technical presence in developed and developing countries, and to provide better support for U.S. private sector firms in the international marketplace. In FY 1992, the Outreach Program was formally established when it was included in the newly passed Intermodal Surface Transportation Efficiency Act of 1991. In FY 1992, the agency began implementing the Outreach Program with significantly increased emphasis on international activities.

OBJECTIVES AND APPROACH

The funds will provide contractual support to expanded activities associated with the International Outreach Program as described in the new legislation and falling in the general categories of searching for new technology abroad, support of private sector export activities, technology exchange and technical assistance. The activities will include hosting international technical committees and foreign delegations, undertaking international scanning initiatives to find and incorporate foreign technology, sponsoring seminars on foreign road-related business and investment opportunities for the private sector, staging exhibits at major international highway-related meetings and conferences, demonstrating U.S. technology in foreign countries, providing technical assistance to specific regions of the world such as Eastern Europe, Russia, and the newly independent states of the former Soviet Union, and providing administrative and specialized support to the agency program office in their international initiatives.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

- The agency continued its commitment to active participation in the Permanent International Association of Road Congresses (PIARC). The agency, in cooperation with the U.S. highway community, appointed U.S. members to PIARC technical committees. The agency also published several articles on U.S. highways in the PIARC "Routes and Roads" magazine. The article received wide coverage in the international community. FHWA representatives of PIARC Committees and Working Groups attended joint meetings that were held in Yokohama from April 26-29. Such joint meetings are held at the mid-point between quadrennial PIARC World

Road Congresses. They combine sessions of PIARC's Executive Committee, 17 standing technical committees and working groups, four special ad hoc groups, and coordinating sessions bringing together representatives of all these committees and groups as well as their Japanese counterparts.

The PIARC is the most effective means available to us for international technical cooperation in the highway field. It enables us to keep up with foreign technical developments and to bring U.S. achievements to the attention of the world highway community.

- The FHWA cosponsored a "Roundtable" meeting to discuss road privatization in Mexico with the Mexican Secretariat of Communications and Transportation. The purpose of the meeting was to familiarize the U.S. private sector with the privatization activities taking place in Mexico and the associated business and investment opportunities. Participants included U.S. and Mexican Government and Private sector representatives. A background paper was developed prior to the meeting and a report was prepared that summarized the findings and conclusions of the meeting. Three working groups were established by the conference participants to begin follow-up activities. Currently, the FHWA is working with interested parties to study the feasibility of a short demonstration study toll road between Tecante, Mexico, and California State Route 125 to encourage U.S. investment in Mexico.

- The FHWA continues to focus on Mexico border transportation issues and is working closely with the Federal Government of Mexico to assure their participation in the Section 6015 Study of NAFTA related transportation and trade impacts. Staff are working closely with the Southwest Border Transportation alliance comprised of the States of Arizona, California, New Mexico, and Texas to further stimulate discussions on issues relative to international trade corridor and border crossings. This will lead to a more integrated planning process.

- In response to a request from the transport agency of Uruguay and Argentina, with the support of the Trade and Development Agency of the Department of State, the FHWA evaluated the feasibility of a privately financed 55km bridge between Buenos Aires, Argentina and Colonia, Uruguay and prepared the justification for and $5 million funding request to the World Bank for the performance of further background studies and the preparation of concession documents.

- The agency performed a preliminary study on technology export promotion. The study outlined current technology promotion activities sponsored by U.S. Government agencies other than the FHWA. The study also outlined technology promotion activities sponsored by foreign governments. Finally, the report detailed U.S. road private sector interest in having the FHWA support their export products.

- The Office of International Programs hosted a two-week tour for the First Deputy Minister of Transport and General director of the Russian Federal Highway Department and his colleagues from various Russian road-related agencies at the Federal, regional, and municipal levels of Government. The purpose of the tour was to acquaint the Russian decisionmakers with the U.S. system of road and highway administration, in preparation for discussions over the scope and content of a comprehensive technical assistance program for Russia, financed through the World Bank and other bilateral arrangements. The March, 1993 tour focussed on the Federal, State, and local intergovernmental relations, as well as on the competitive role for the private sector in planning, designing, constructing, and maintaining highways in the United States.

- The agency collaborated with Finland for the proposed development of a regional technology transfer center similar in nature to the Pan American Institute of Highways. The center will be established in Finland. Meetings were hosted to coordinate these activities with other potential sponsors including the Baltics.

- The International Road Federation World Meeting, the Pacific Rim Conference, and ConExpo represented three of the most important international road-related conferences. The agency presented U.S. highway technology exhibits at two of these conferences.

- The agency will continue its very successful Foreign Visitor's Program. The FHWA participates in road research and technology sharing activities with other developed and developing countries. The FHWA's participation is vital to improving road transportation at home and abroad. To keep the United States abreast of foreign technological developments, the FHWA arranges study programs for approximately 400 visitors annually, maintains membership in international governmental and non-governmental organizations, and participates in international conferences and meetings.

PLANNED ACCOMPLISHMENTS FOR FY 1994

- Consistent with the priorities of the Interagency Trade Policy Coordinating Council (TPCC), chaired by the USDOC/ITA and in accordance with the findings of the technology export promotion study, the FHWA will undertake several initiatives to address the export promotion sections of the Intermodal Surface Transportation Efficiency Act of 1991. The FHWA will undertake projects that address (a) the needs of U.S. design and consulting firms bidding on major IBRD/ADB funded projects against foreign competitors, (b) the interests of U.S. construction equipment manufacturers and distributors in establishing equipment leasing corporations, distributorship, or manufacturing and assembly operations in Russia and other newly independent states, and (c) the desires of financial and legal services cooperations to participate in the development of international tollroad/bridge/tunnel projects, such as the Rio de la Plata Bridge/Tunnel project between Buenos Aires, Argentina and Colonia, Uruguay.

- The agency will continue to support establishment of regional technology exchange centers in Finland and the Baltics. In addition, the concept will be adapted for other regions of the world, such as Eastern Europe.

- The FHWA jointly with various U.S. trade organizations will organize and carry out meetings and conferences to facilitate discussion and evoke views and opinions on emerging issues related to transportation, trade, and environment in the Americas. Groups such as the Council of Ministers of Transport for Latin America, which will convene prior to the White House sponsored Hemisphere Summit of Presidents of the Americas, will be key participants for discussions on policy and related issues.

- The FHWA will undertake follow-up activities for the ISTEA Section 6015 study that was performed in 1993. These activities included meetings such as the IRF meeting on international trade in Monterrey, Mexico and efforts to harmonize infrastructure planning along the U.S./Mexico border. The IRF Regional Meeting is to take place in Calgary, Alberta, Canada in 1994. The FHWA expects to have active participation in this meeting which offers the opportunity to further address trade issues.

- In addition to the Russian observational study tours, the FHWA will organize and implement initiatives to promote U.S. Transportation interests in Russia and the other nations of the CIS. These initiatives will include: training component for Russian highway program; and the provision of technical advisory services to survey the strategic highway technology needs for the institutional reform of the Russian highway sector. The FHWA will also continue to assist in developing and translating critical technical materials.

- Under the terms of the "Memorandum of Understanding" (MOU), the FHWA will continue its support of World Bank's regional and national highway development projects and related technical assistance initiatives throughout the developing world, but with a particular focus on central and eastern Europe. This will include performance monitoring, roadway information systems, and roadway administration policies and procedures.

- The agency will continue its Foreign Visitor's Program. The program gives foreign highway professionals assistance in arranging meetings and briefings on road-related technical subjects with U.S. experts. At the same time, the program creates the environment and opportunity for FHWA to discover technological and innovative developments in other countries. This program is used by approximately 400 people every year.

PLANNED ACCOMPLISHMENTS FOR FY 1995

- The FHWA will continue to support the increased interest in the Visitors Program. The program gives foreign highway professionals assistance in arranging meetings and briefings on road-related technical subjects with U.S. experts. On average, this program is used by approximately 500 people every year.
- Regional Technology Exchange Centers in Finland, the Baltics and Eastern Europe will continue to be developed and improved. FHWA will search for new opportunities to establish other regional centers.
- The Office of International Programs will undertake initiatives to promote U.S. interests in Mexico. Central to these initiatives is the pending North American Free Trade Agreement and issues of border crossings. The FHWA will continue to support "Roundtable" meetings to address these issues.
- FHWA will continue to organize and implement initiatives to promote U.S. Transportation interests in Russia and other newly independent states of the former Soviet Union. Technical assistance, observational study tours and training will continue to be the backbone of this program.
- The Office of International Programs will continue to assist with managing U.S. participation in international organizations such as the Permanent International Association of Road Congresses (PIARC), the Organization for Economic Cooperation and Development (OECD), and the International Road Federation (IRF). PIARC activities will include: supporting an FHWA employee working at the PIARC Secretariat in Paris; preparing for and attending the 1995 PIARC World Road Congress, exhibition, and associated events; and participating in the many continuing manager and technical working groups/committees of PIARC.
- The proposed Joint North American Transportation Conference will be held preceding the PIARC World Congress to discuss the transportation implication of the emerging North

American Free Trade zone. It will be held in conjunction with the PIARC World Road Congress September 1995 in Montreal. Canadian and Mexican authorities have indicated a desire to be co-sponsors. Details have yet to be decided.

- FHWA's Office of International Programs will strengthen its programmative outreach and human resource capabilities in response to the international objectives of the Secretary's Strategic Plan. These objectives, which are applicable to each of the modal administrations include requirements to:
  - identify and develop global transportation corridors,
  - provide strategic support to new transportation industries abroad,
  - promote the development and export of transportation technology,
  - reduce personal injury/death and damage/loss of goods in international travel,
  - implement the transportation elements of the President's "Global Warming" and "Sustainable Development" initiatives,
  - improve the mobility by reducing congestion and enhancing intermodal connections in global logistics chains, and
  - reinvent DOT/FHWA functions to support U.S. economic interests abroad.

The implementation of the Secretary's program may require the appropriation of additional funds and allocation to FHWA.

FAIRBANK BUILDING RENOVATION

	(Dollars in Thousands)		
	FY 1994	FY 1995	CHANGE
AUTHORIZATION/OBLIGATION LEVEL	$1,250	$3,000	+$1,750

BACKGROUND

The Fairbank Building was constructed in 1942 and primarily used as a machine shop until 1964, when a major renovation occurred. Major problems still exist:

- While the original steam radiator heat has been augmented and later modified to include steam coils, it is still nearly impossible to control temperature and air balance.
- Many of the original utilities including pipes, drains, conduits, wiring, lighting and asbestos pipe insulation have remained in place and untouched for 52 years.
- The domestic hot and cold water pipes are severely restricted by heavy deposits of calcium and corrosion.
- The storm pipes and sanitary sewer lines are clogging with rust scale and corrosion.
- Windows in the building are single pane casement type and contribute to problem in controlling the heat and air conditioning of the building.

OBJECTIVES AND APPROACH

The plans call for renovating the Fairbank Building to create a satisfactory office and laboratory work space for the staff and to comply with the Federal energy reductions by 1995. Many laboratories now located in the Fairbank Building carry out studies using volatile materials, gasses, and even nuclear substances. The safety of the employees, visiting researchers, and contractors requires that all of these laboratories be maintained following current codes and physical accommodations.

The Fairbank Building is very germane to the mission of the FHWA, and especially to the future mission of the Research and Technology Program since it houses the staff and physical laboratories related to the basic sciences such as chemistry and materials. The building also houses the National Highway Institute training staff, which is critical to the delivery of advanced technology to the highway community. The proposed renovation of the Fairbank Building will provide a safe and high quality work environment for the research staff which will help to implement the National Transportation Program and to carry forward the responsibilities for our significantly expanded R&D program.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

From 1964 to 1980 many modifications, alterations, repairs, and refurbishment occurred to accommodate the increasing R&D staff and the changes of emphasis experienced within the research programs.

A needs and asbestos survey, code and energy analysis, and preliminary plans for renovation of the Fairbank Building were completed in 1992. The final report identified numerous code violations in the electrical, heating, and plumbing systems and violations of the fire code with respect to building egress. Access to the building and rest rooms does not meet the requirements of the Americans with Disabilities Act. Asbestos was also found in a number of areas on all floors of the building. The energy analysis indicated that substantial energy savings could be obtained by replacing the existing windows, adding insulation in the attic and exterior walls, installing a new heating and air conditioning system, and replacing the existing lighting fixtures.

The total estimated cost, based on a detailed cost estimate developed in 1992, is $6 million. Due to budget restrictions, the construction work has been divided into three stages. Construction plans for Stages 1 and 2 were completed in July, 1993.

PLANNED ACCOMPLISHMENTS FOR FY 1994

The Stage 1 and 2 construction contract will be awarded in February 1994. Preparation of construction plans for the Stage 3 construction will be initiated.

PLANNED ACCOMPLISHMENTS FOR FY 1995

The Stage 1 and 2 construction will be completed. The Stage 3 construction plans will be completed and the construction contract awarded. It will include renovation of the remaining laboratories including the Paint Analysis, Chemistry, Soils and Aggregate Laboratories; energy conservation measures including window replacement, attic insulation and replacement of lighting fixtures; and improvements to the public areas and office spaces.

Rehabilitation of The Fairbank Building
Cost Breakdown for FY 1995

Following the completion of the Stage 2 construction, a Stage 3 construction contract will be designed and awarded. This FY 1995 contract will complete the work planned for renovating the Fairbank Building and will include the following:

ACTIVITY	COST	REMARKS
Shop upgrading	$332,000	• Fire protection • Suspended ceiling • New lighting • New power supply
Aggregate and Concrete Laboratory Upgrading	$691,000	• Fire protection • Suspended ceiling • New lighting • New power supply • Update lab furnishings • New lab equipment
Chemistry Laboratory Upgrading	$385,000	• Fire protection • Suspended ceiling • New lighting • New power supply • Update lab furnishings • New lab equipment
Window replacement	$662,000	• Existing single pane windows contribute to excessive heat loss & ventilation problems
Improvements to public areas on ground floor	$60,000	• Add suspended ceilings • Door replacement • New lighting
Improvements to public areas and offices on first floor	$205,000	• Add suspended ceilings • Door replacement • New lighting
Improvements to public areas and offices on second floor	$355,000	• Add suspended ceilings • Door replacement • New lighting
Attic furring and insulation	$112,000	• Attic is currently unfinished • Building roof is not insulated

Improvements to stair from ground floor to first floor	$198,000	• New stair at tunnel • New lighting • Glass enclosure at stair exit
Total	$3,000,000	

ON-THE-JOB TRAINING (OJT) SUPPORTIVE SERVICES (SS)

	(Dollars in Thousands) FY 1994	FY 1995	CHANGE
AUTHORIZATION/OBLIGATION LEVEL	...	$10,000	+$10,000

BACKGROUND

After the OJT/SS funds were administratively cut in the budget process, significant opportunities to increase the involvement of minorities and women in non-traditional highway construction crafts were lost. Although more highway construction employment opportunities were reported after the passage of the 1987 Surface Transportation and Uniform Relocation Assistance Act (STURAA), historic employment patterns were reinforced with minorities and women relegated to the most marginal, labor intensive, dangerous, and lowest paying jobs in the industry. Although States have the option under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to take down up to one-quarter of 1 percent of funds apportioned for Surface Transportation and Bridge programs (the option will increase to one-half of 1 percent of the same funds in 1994) to provide supportive services, few have opted to do so, preferring instead to use the funds for asphalt, concrete, and steel.

States' staffs, contractors, and unions recognize the need for effective training programs. They also realize that outreach and support efforts to date have been insufficient to ensure the availability of a dependable, trained, and diverse work force. Several States, recognizing the need for such approaches and dissatisfied with the inconsistency of Federal funding, obtained State authorizations to maintain their supportive services efforts.

It is expected that a larger work force will be needed to complete the work which will be contracted for with funds made available by the ISTEA. Also, the average age of active skilled craftsmen points toward a shortage of personnel with the requisite skills and experience to support a healthy, non-inflationary highway construction industry. Effective, coordinated measures are needed for the nation to realize the promise inherent in legislation to expand and upgrade our infrastructure.

OBJECTIVES AND APPROACH

- To break cycles of dependency and learned helplessness.

- To provide exposure to highway construction employment opportunities, legitimate learning experiences, and positive reinforcement to OJT Trainees.

o To work with and through contractors' supervisory staffs, community based organizations, and unions to expose them to concepts of recognizing, valuing, and managing diversity to increase industry productivity.

o To work cooperatively with union and non-union contractors' associations, unions, the responsible agencies of the U.S. Department of Labor (DOL) (the Employment and Training Administration, the Bureau of Apprenticeship and Training, the Office of Workplace Learning, and the Women's Bureau) in collaboration with the National Advisory Committee on Apprenticeship to agree to industry-wide standards for skills in apprenticeable occupations in highway construction.

o To establish criteria and select demonstration projects to be put in place in urban and rural, union, and non-union areas of selected States. The results of these efforts will be analyzed, condensed, and provided to all States as examples of workable programs.

o To hold pre-proposal and pre-bid seminars with State staffs and prospective contractors to outline expectations and standards, and to establish the parameters for acceptable, reimbursable activities.

o To provide to State staffs and providers of Supportive Services, training, advice, and technical assistance.

ACCOMPLISHMENTS TO DATE (FY 1993 AND PRIOR)

Although several of the approaches employed by States were not considered effective, others, even in union areas, had often dramatic, positive impacts. The completion of a series of Civil Rights Office sponsored seminars resulted in the identification of the most workable aspects of the program which could benefit the trainees and the industry. Prior to the 1987 cuts, and the 4-year inflationary spiral which affected job opportunities, the OJT and OJT/SS programs were instrumental in significantly changing reported employment patterns of minorities and women involved in highway construction employment. When the opportunities offered by the Surface Transportation Assistance Act of 1982 and STURAA became available, the crippled program and service providers were not in position to reach, orient, assist, or support the trainees or contractors.

The Federal Highway Administration (FHWA), with the Women's Bureau and the Employment and Training Administration of the DOL completed a study of the most effective methods employed to increase the employment of women in non-traditional highway construction employment. Participants at the pilot presentation of the "Women in Highway Construction" (WIHC) course included representatives of FHWA and DOL, contractors, unions, and craftswomen. The course was so well received that it was decided to forego field testing of the manual and training guide, make recommended revisions, and implement the approach as soon as possible. Since the WIHC initiative was unveiled at the 1992 National Civil Rights Conference, the course has been presented eight times and is currently scheduled for five other presentations this fiscal year. Demand for the course has been high and is expected to continue.

PLANNED ACCOMPLISHMENTS FOR 1994

o To promote and provide advice to States on effective use of the one-half of 1 percent OJT funds available to them.

o To revise the OJT and OJT/SS regulations.

o To work with the Bureau of Apprenticeship and Training and the Office of Workplace Learning at the DOL -- with highway industry representatives and the National Apprenticeship Advisory Committee -- to establish industry-specific standards for apprenticeable highway construction trades in non-union areas.

o To develop and apply a reliable fund allocation formula and establish clear criteria and standards for performance to ensure quality in the performance of services and outreach efforts.

o To promote the revised regulation and effective approaches to increase the skill and diversity of the highway construction work force.

o To present a series of seminars to selected service providers to outline requirements, ensure consistency in approaches, and to make clear the objectives and expectations of the program.

o To complete a series of presentations to contractors and State highway agency personnel on the most effective methods to recruit, hire, train, and retain personnel in highway construction employment.

o To develop a presentation and materials for use by high school counselors which orients students to job opportunities in the highway construction industry.

o To work with contractor organizations to agree on training standards and the criteria for certification of journey-level performance in particular highway related crafts.

PLANNED ACCOMPLISHMENTS FOR 1995

o To assess the effectiveness of the 1994 efforts and revise/redirect accordingly.

o To allocate funds to States according to formula and to identify three national level efforts for enhancing the effectiveness of the OJT/SS effort.

o To disseminate to high school counselors, the presentation informing students of the industry and its employment opportunities.

o To draft and coordinate an effective approach to connect recently released armed service personnel with highway construction or related experience to jobs in the industry.

o To develop an initiative to involve highway construction unions more directly in the OJT/SS effort.

o To monitor ongoing activities and to provide training and advice upon request or when the need is indicated.

SUPPORT FOR TECHNICAL ASSISTANCE PROGRAM TO RUSSIA

	(dollars in thousands)		
	FY 1994	FY 1995	CHANGE
Authorization/Obligation Level	$0	$1,600	+$1,600

BACKGROUND

One of the most important and challenging international program activities to be managed by the FHWA is the provision of technical assistance to the Russian Ministry of Transport's Federal Highway Department (RMOT/FHD) and the Russian regional and municipal entities concerned with surface transportation. It follows the Congressional authorization for the establishment of an International Outreach Program under the "Intermodal Surface Transportation Efficiency Act of 1991" (PL 102.511, section 201, paragraph 11, et al). The proposed technical assistance program will be guided by the terms and conditions of the Memorandum of Understanding between USDOT/FHWA and the World Bank (IBRD) of June 1992, and subsequent agreements, as well as a bilateral agreement and a proposed program specific Memorandum of Understanding between the USDOT/FHWA and its Russian counterpart the RMOT/FHD. The nature and scope of the technical assistance activities are outlined in various appraisal reports prepared by FHWA's Office of International Programs. The technical assistance program is a comprehensive effort, involving U.S. public sector entities at the Federal, State and local levels of government as well as private non-profit industry associations, professional organizations and academic institutions.

OBJECTIVES AND APPROACH

The program objectives are aimed at supporting the Russian government's desire to strengthen the institutional framework in the road infrastructure and road transport subsector and to facilitate the emergence of a market based economy; to provide advice on the formulation of appropriate policy issues, organizational and managerial matters, fiscal and financial concerns, procurement procedures, technical standards, knowledge transfer processes, and training. FHWA has formed a long-term partnership with the Russian Federal Highway Department and will use its channels to provide the Russians with access to the U.S. experience, as well as promote the export of U.S. highway related goods and services to Russia.

ACCOMPLISHMENTS TO DATE (FY 1993 and Prior)

FHWA has monitored transport related activities in the former Soviet Union since 1989 and has been actively involved in the Russian Federation transport sector reform efforts since 1991. FHWA officials have participated with World Bank personnel in assessing, as part of the preparatory efforts for a loan for road rehabilitation and maintenance, Russian highway related needs and associated institutional reform requirements. FHWA also hosted several observational study tours of Russian government transport officials to the U.S. and has introduced the Russians to key representatives of Federal, State, and local agencies, industry associations and professional organizations.

PLANNED ACCOMPLISHMENTS FOR FY 1995-1997

In support of the World Bank's $340 million loan to the RMOT/FHD for the Highway Rehabilitation and Maintenance Program (HRMP), the USDOT/FHWA has agreed to provide three technical advisors to the Project Implementation Unit (PIU) in Moscow for the duration of the 3 year program. The PIU is an entity staffed by RMOT/FHD employees and specifically created to implement the HRMP.

The USDOT/FHWA is in the process of obtaining the appropriate clearances from the Honorable Thomas R. Pickering, U.S. Ambassador to Russia, and the State Department to assign these advisors to Moscow. The FHWA has already hired one of the three advisors, a financial manager, who will assist the RMOT/FHD in developing a new financial and accounting system. We anticipate that he will be moving to Moscow by the end of April 1994.

The first projects within the HRMP will consist of four to five pilot projects which will serve as training exercises for the RMOT/FHD in the use of competitive bidding procedures, quality control techniques, and international contracting. These projects are scheduled to begin in May 1994. The design work for these projects was jointly completed by the USDOT/FHWA and RMOT/FHD in both Moscow and Washington.

Additional program activities to be undertaken will include, but may not be limited, to the following program of action:

1. Observational Study Tours to the United States for Russian officials from national, provincial and municipal levels of Government and from the parliamentary committees, academic institutions and associations of enterprises, to visit their counterparts and to establish cooperative relationships. The study tours could last from 2 weeks to 2 months and would be designed for intensive interactions and include detailed briefings on all issues of concern to the participants.

2. Technical Training for Russian Project Managers involved in (IBRD loan funded) project preparation, project management and task implementation pertaining to pavement management, road maintenance procedures, financial and procurement management, etc. The short-term courses and seminars would be arranged through the IBRD's Economic Development Institute and the U.S. Government's internal training institutes, (i.e., FHWA's National Highway Institute and the GSA's National Training Institute). The FHWA would serve as the "Senior Advisor" to the RMOT/FHD and the IBRD to ensure a coordinated approach to the short term, project specific requirements and the long term, institutional development agenda.

3. USDOT/FHWA Technical Advisory Services to RMOT/FHD aimed at organizational capacity building. The team of U.S. advisors would help establish an effective management system, including the drafting of policy statements, proposals for legal and regulatory guidance, detailed Mission and Function Statements and other means of transferring appropriate U.S. experience to their respective counterparts at the RMOT/FHD. The multi-year effort would involve numerous short term assignments in Moscow and reciprocal visits of Russian officials to the United States. In addition to experts from the FHWA, the Senior Advisor/Project Manager could also draw on experts from other USDOT modal administrations and state or local government entities to complement the staffing needs in various technical areas, if existing staffing levels permit. Further details on FHWA's role in managing the implementation of the program is provided in the following section of this report.

4. Privatization and Industry Development Measures such as the "cloning" of U.S. transport industry associations, as a means of establishing a competitive service industry in Russia. U.S. industry associations would be encouraged to establish similar associations in Russia in cooperation with potential counterpart entities. The U.S. associations would provide appropriate training under contract on a cost reimbursable basis to Russian associates to facilitate the emergence of a competitive industry in the respective subsectors, possibly through the encouragement of joint venture partnerships between U.S. and Russian firms.

5. Twinning Arrangements between Russian Provincial and Municipal Governments and U.S. State and Municipal Departments of Transportation and associated highway agencies. A selected number of U.S. State and municipal transportation agencies would be enlisted to transfer organizational and management capacity, technical skills and other knowledge to their Russian counterparts through formal internships, reciprocal visits, home hospitality, language training, participation in civic and professional activities, etc. The program would be

funded and managed under a long term contractual (i.e., a performance based and cost reimbursable) arrangement with participating State and Municipal Departments of Transportation .

6. Research and Technology Adaptation Program to extend the benefits of research activities undertaken under the auspices of American Association of State Highway Transportation Officials (AASHTO) and Transportation Research Board (TRB) to Russian institutions and individuals. The program would provide access to all existing research reports, books, manuals, etc. and would also select documents that are appropriate for editing (adaptation to Russian conditions) and for translation and distribution in Russia. The program would set up Technology Transfer Centers in selected cities and open other channels for cost-effective knowledge transfers. The program would be designed to also encourage associate membership status for selected Russian organizations and provide invitational travel fellowships for conferences and seminars open to key officials throughout Russia. The USDOT/FHWA would serve as the contracting agency for participating organizations and monitor activities over time. The program may, if needed, involve other U.S. governmental agencies, such as the U.S. Corps of Engineers, and its Cold Weather Research Center, in order to strengthen the cooperative research activities between Russia and U.S. institutes in areas of special need.

7. Academic Training in transport economics, engineering, business management and logistics, aimed at facilitating the transition from a centrally-directed to a market-based economy and establishing a competitive environment for the privatized formerly State-owned enterprises in the transport sector. The program would assist Russian universities in developing appropriate curricula, training of instructors in the United States, exchange of faculty members and graduate students, and the design of case studies and other instruction material. The program would be managed under a long-term contractual arrangement with a consortium of U.S. universities, rather than with individual institutions, in order to draw upon the knowledge of as many interested parties as possible in the delivery of services.

8. Program Management Support would be provided by a program management office that would be established in Moscow, to complement the IBRD project management activities as well as the USDOT/FHWA staffing capabilities already in place in the International Programs Office in Washington D.C. The Moscow Office would be managed by one or two U.S. representatives with the assistance of Russian staff who would handle the typical office functions such as logistics, travel,

communication, procurement, interpretation, translation, word and data processing, printing and reproduction, and other tasks arising from the management of the ten program elements as outlined above.

A consultative group involving key representatives of the principal U.S. and Russian Government agencies, associations, organizations and institutions would provide leadership in the transport related policy formulation process; the scope of technical cooperation; and the monitoring of progress in implementing agreed upon initiatives. The "U.S.-Russian Consultative Group on Surface Transportation" would meet periodically to address current concerns and take appropriate action to ensure the pace of project activities and the momentum for change. The Consultative Group would be supported by USDOT/FHWA staff and publish a regular monthly Newsletter and other periodic reports on the status of activities over time. Implicit in the management of the Consultative Group activities are periodical "Oversight Missions" by key U.S. participants to Russia and reciprocal visits by Russian officials, possibly in conjunction with the aforementioned Observational Study Tours.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

[MISCELLANEOUS APPROPRIATIONS]

[RAILROAD-HIGHWAY CROSSINGS PROJECTS]

[For necessary expenses of certain railroad-highway crossings projects as authorized by section 163 of the Federal-Aid Highway Act of 1973, as amended, to remain available until expended, $30,262,000.]

[BALTIMORE-WASHINGTON PARKWAY]

[For necessary expenses, not otherwise provided, to carry out the provisions of the Federal-Aid Highway Act of 1970 and section 1069 of Public Law 102-240 for the Baltimore-Washington Parkway, to remain available until expended, $12,800,000.]

[KENTUCKY BRIDGE PROJECT]

[For up to 80 percent of the expenses necessary for continuing construction to replace the Glover Cary Bridge in Owensboro, Kentucky, $12,000,000.]

[BORDER HIGHWAY PROJECT]

[For up to 80 percent of the expenses necessary for the border highway project authorized in Public Law 89-795, $6,400,000.]

[ADDITIONAL HIGHWAY PROJECTS]

[APPALACHIAN CORRIDOR IMPROVEMENT PROJECT]

[For 80 percent of the expenses necessary to continue construction on Kentucky Corridor B and West Virginia Corridor L of the Appalachian Development Highway System, as authorized by section 1069(y) of Public Law 102-240, $57,000,000.]

[CUMBERLAND GAP TUNNEL PROJECT]

[For expenses necessary for the Cumberland Gap Tunnel Project, as authorized by section 1069(c) of Public Law 102-240, $6,000,000.]

[LOCK AND DAM NO. 4 BRIDGE]

[For 80 percent of the expenses necessary for the Lock and Dam No. 4 bridge in Pine Bluff, Arkansas, $4,000,000.]

[CONGESTION MITIGATION]

[For 80 percent of the expenses necessary for the Syracuse, New York congestion mitigation project, as authorized by section 1069(bb) of Public Law 102-240, $1,600,000.]

[CROSS WESTCHESTER EXPRESSWAY]

[For 80 percent of the expenses necessary for the I-287 Cross Westchester, New York Expressway high occupancy vehicle lane project, as authorized by section 1069(ff) of Public Law 102-240, $9,800,000.]

[SCHENECTADY BRIDGE]

[For 80 percent of the expenses necessary for construction of the Exit 26 bridge in Schenectady County, New York, as authorized by section 1069(b) of Public Law 102-240, $3,200,000.]

[COLUMBIA GORGE HIGHWAY]

[For 80 percent of the expenses necessary for the Hood River to Mosier Connection project, as authorized by section 16(b)(3) of Public Law 99-663, $2,500,000.]

[MANASSAS BATTLEFIELD BYPASS]

[For 75 percent of the expenses necessary for the Manassas Battlefield highway projects, as authorized by section 10004(d) of Public Law 100-647, $3,000,000.] (*Department of Transportation and Related Agencies Appropriations Act, 1994.*)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

GENERAL STATEMENT
(in thousands of dollars)

	1993 actual	1994 estimate	1995 estimate
Enacted/requested:			
Budget Authority	16,861	145,502	....
Outlays	232,851	232,090	236,888
Assumed Savings:			
Budget Authority	....	-343,574	....
Outlays	....	-31,578	-69,093
Total:			
Budget Authority	16,861	-198,072	....
Outlays	232,851	200,512	167,795

Background

This miscellaneous account contains appropriations derived from general funds for which no new budget authority is requested in FY 1995. Obligations and outlays result from prior-year appropriations.

Assumed Savings

The budget assumes FY 1995 outlay savings of $406 million ($314 million in Federal-aid Highways, $69 million in Miscellaneous Appropriations, and $23 million in Miscellaneous Highway Trust Funds accounts) associated with rescissions based on recommendations of the National Performance Review. However, at the same time, the Administration recognizes that other options are available to achieve these savings. One option, transmitted as an FY 1994 supplemental, would require the Secretary to reduce or delay obligations of highway construction projects in FY 1994 sufficient to reduce FY 1995 outlays by $406 million. It is the Administration's intent to work with the Congress to accomplish the means to achieve the necessary savings.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification Code. 69-9911-0-1-401		1993 Actual	1994 Estimate	1995 Estimate
	Program by Activities.			
00.01	PA Reconstruction Demonstration	....	2,433	2,433
00.03	Highway Beautification	....	66	66
00.04	Rail Line Consolidation	....	1,000	1,000
00.05	PA Toll Road Demonstration	....	161	161
00.06	Interstate Transfer Grants	....	3,494	3,494
00.07	Highway Widening Demonstration	324	2,008	2,008
00.08	Baltimore-Washington Parkway	....	17,800	5,000
00.09	Bridge Improvement Demo. Project	614	1,252	1,252
00.10	Feasibility, Design, Enviromental and Engineering	1,056	4,141	4,141
00.11	Highway Widening and Improvement	4,919	3,717	3,717
00.14	Climbing Lane Demonstration	900	4,889	4,889
00.15	Indiana Industrial Corridor	3,911	885	885
00.16	Corridor H Improvement Project	26,767	1,456	1,456
00.17	Oklahoma Highway Widening	....	416	416
00.18	Alabama Highway Bypass	....	7,507	7,507
00.20	Virginia HOV Safety Demonstration	2,056	....	....
00.21	Urban Highway Corridor	11,722	1,165	1,165
00.22	Urban Airport Access	5,201	4,174	4,174
00.23	Rail Crossings Demonstration Projects	....	6	6
00.24	Highway Demonstration Projects	43,737	61,652	61,652
00.25	Highway Safety Improvement Demonstration Projects	14,452	516	516
00.26	Corridor D Improvement Project	1,638	2,374	2,374
00.27	Bypass Construction Project	371	1,266	1,266
00.28	Road Extension Demonstration	....	189	189
00.29	Expressway Safety Improvement	2,600	....	....
00.30	Highway Demonstration Projects - Preliminary Engineering	4,151	3,679	3,679
00.31	Turquoise Trail Project	148	625	625
00.32	Corridor G Improvement Project	65,094	23,473	23,473
00.33	North Carolina Connector Project	4,600	....	....
00.34	Manhattan Bridge Replacement	....	819	819
00.36	Corning Bypass Safety Project	38,810	26	26
00.37	Access to Public Lakes	....	350	350
00.38	Trade Enhancement	....	3,508	3,508
00.39	Ottumwa Road Extension Proj	3,729	3,990	3,990
00.40	Iowa Conector	1,409	....	....
00.41	Highway 20 Realignment	....	586	586
00.42	Ramp Relocation and Reconstruction	....	3,400	3,400
00.43	US 54 Interchange	800	2,822	2,822
00.44	Des Moines Inner Loop	....	931	931
00.45	Highway Bypass Demonstration	....	3,000	3,000
00.46	Railroad Highway Crossing Demonstration	3,972	33,335	3,073
00.68	Appalachian Corridor Improvement Project	....	57,000	....
00.69	Cumberland Gap Tunnel Project.	....	6,000	....
00.70	Lock and Dam No. 4 Bridge	....	4,000	....
00.71	Congestion Mitigation	....	1,600	....
00.72	Cross Westchester Expressway	....	9,600	....
00.73	Schenectady Bridge	....	3,200	....
00.74	Columbia Gorge Highway	....	2,500	....
00.75	Manassas Battlefield Bypass	....	3,000	....
00.76	Border Highway Project	....	6,400	....
00.77	Kentucky Bridge Project	....	12,000	....
00.78	Motor Carrier Safety	....	29	29
10.00	Total Obligations (object class 41.0)	240,981	308,660	180,098

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification Code: 69-9911-0-1-401	1993 Actual	1994 Estimate	1995 Estimate
Financing:			
17.00 Recovery of prior year obligations	-3,178	...	...
21.40 Unobligated balance available, start of year	-704,296	-483,354	-320,196
24.40 Unobligated balance available, end of year	483,354	320,196	160,098
39.00 Budget Authority	16,861	145,502	...
40.00 Appropriation	16,861	148,562	...
40.36 Unobligated balance rescinded	...	-3,060	...
43.00 Appropriation (Total)	16,861	145,502	...
Relation of obligations to outlays:			
71.00 Total obligations	240,981	308,660	160,098
72.40 Obligated balance, start of year	370,851	375,127	451,697
74.40 Obligated balance, end of year	-375,127	-451,697	-374,907
77.00 Adjustments in expired accounts	-676	...	...
78.00 Adjustments in unexpired accounts	-3,178	...	...
90.00 Total Outlays	232,851	232,090	236,888

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification Code: 69-9911-0-1-401	1993 Actual	1994 Estimate	1995 Estimate
Distribution of budget authority by accounts:			
Highway Widening Demonstration	640	...	...
Baltimore-Washington Parkway	15,000	12,800	...
Intersection Safety Demonstration Project	...	-3,060	...
Railroad-Hwy Crossing Demonstration	1,221	30,262	...
Appalachian Corridor Improvement Project	...	57,000	...
Cumberland Gap Tunnel Project.	...	6,000	...
Lock and Dam No. 4 Bridge	...	4,000	...
Congestion Mitigation	...	1,600	...
Cross Westchester Expressway	...	9,800	...
Schenectady Bridge	...	3,200	...
Columbia Gorge Highway	...	2,500	...
Manassas Battlefield Bypass	...	3,000	...
Border Highway Project	...	6,400	...
Kentucky Bridge Project	...	12,000	...

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification Code: 69-9911-0-1-401	1993 Actual	1994 Estimate	1995 Estimate
Distribution of outlays by accounts:			
PA Reconstruction Demonstration	4,776	2,529	2,537
Territorial Highway Program	186	998	622
Highway Beautification	371	337	236
Rail-Line Consolidation	21	421	658
PA Toll Road Demonstration	3,110	1,505	1,009
Interstate Transfer Grants	7,871	7,334	5,950
Highway Widening Demonstration	559	1,509	1,734
Baltimore-Washington Parkway	...	3,560	6,696
Bridge Improvement Demo. Project	3,614	1,688	1,546
Feasibility, Design, Enviromental and Engineering	1,712	2,904	3,446
Highway Widening and Improvement	1,084	4,774	4,443
Intersection Safety Demonstration	62	137	86
Highway Capacity Improvement	1,989	61	38
Climbing Lane Demonstration	980	1,382	2,794
Indiana Industrial Corridor	432	2,496	1,905
Corridor H Improvement Project	25,682	16,326	10,743
Oklahoma Highway Widening	...	787	655
Alabama Highway Bypass	985	3,369	5,067
Kentucky Bridge Demonstration	10,459	683	426
Virginia HOV Safety Demonstration	6,570	160	99
Urban Highway Corridor	5,543	6,664	4,611
Urban Airport Access	3,954	2,968	3,499
Rail Crossings Demonstration Projects	...	222	140
Highway Demonstration Projects	55,944	42,008	50,542
Highway Safety Improvement Demonstration Projects	3,839	5,053	3,351
Corridor D Improvement Project	1,439	1,128	1,641
Bypass Construction Project	22,383	1,722	1,573
Road Extension Demonstration	5,264	2,375	1,554
Expressway Safety Improvement	35	1,165	726
Highway Demonstration Projects - Preliminary Engineering	8,683	9,690	7,490
Turquoise Trail Project	654	2,313	1,688
Corridor G Improvement Project	22,653	45,919	37,880
North Carolina Connector Project	20	2,154	1,341
Manhattan Bridge Replacement	307	176	434
Junction City Highway Project	381	...	...
Corning Bypass Safety Project	18,379	12,896	8,041
Access to Public Lakes	811	179	250
Trade Enhancement	40	729	1,841

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification Code: 69-9911-0-1-401	1993 Actual	1994 Estimate	1995 Estimate
Distribution of outlays by account (Continued):			
Ottumwa Road Extension Proj	1,316	1,894	2,757
Iowa Conector	109	599	373
Highway 20 Realignment	172	205	359
Ramp Relocation and Reconstruction	...	680	1,768
US 54 Interchange	...	928	1,694
Des Moines Inner Loop	...	186	484
Highway Bypass Demonstration	...	600	1,560
Railroad Highway Crossing Demonstration	2,776	10,696	13,791
Alabama Feasibility Study	9	8	5
Inter-American Highway	...	37	23
Highway Safety Separation Demonstration	...	246	153
Reservation Road	...	42	26
Traffic Improvement Demonstration	97	12	8
Spring Mountain Demonstration	-368	558	348
Public Lands	...	3	2
Alaska Highway	35	96	60
Off System Roads	5	27	17
Bikeway Demo. Program	...	11	7
Darien Gap	...	925	576
Waste Isolation Pilot Program	697	566	352
Expressway Gap Closing	80	539	336
Bridge Restoration	8	...	...
International Zaragosa Bridge	50	...	...
Ebensburg Bypass Demonstration	16	1	1
Bicycle Program	-34	...	...
Rail-Highway Crossings, Off-System	-3	...	...
Safer Off-System Roads	-33	...	...
Appalachian Corridor Improvement Proj.	...	11,400	18,240
Cumberland Gap Tunnel Project	...	1,200	1,920
Lock and Dam No. 4 Bridge	...	800	1,280
Congestion Mitigation	...	320	512
Cross Westchester Expressway	...	1,960	3,136
Schenectady Bridge	...	640	1,024
Columbia Gorge Highway	...	500	800
Manassas Battlefield Bypass	...	600	960
Border Highway Project	...	1,280	2,048
Kentucky Bridge Project	...	2,400	3,840
Motor Carrier Safety	7,121	1,809	1,138

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification code 69-9911-5-7-401 (Rescission Schedule)	1993 actual	1994 est.	1995 est.
Financing:			
21.40 Unobligated balance available, start of year	....	....	185,684
24.40 Unobligated balance available, end of year	....	-185,684	-92,842
Budget authority:			
39.00 Budget Authority	....	-343,574	
40.35 Appropriation rescission proposal, (R94-52)	....	-86,661	....
40.36 Appropriation rescission proposal .... (unobligated balance), (R94-32A)	....	-132,821	....
40.36 Appropriation rescission proposal .... (unobligated balance), (R94-52)	....	-124,092	....
43.00 Appropriation (Total)	....	-343,574	....
Relation of obligations to outlays:			
71.00 Total Obligations	....	-157,890	-92,842
72.40 Obligated balance, start of year	....	....	-126,312
74.40 Obligated balance, end of year	....	126,312	150,061
90.00 Outlays	....	-31,578	-69,093

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS APPROPRIATIONS

Program and Financing (in thousands of dollars)

Identification code 69-9911-5-7-401 (Rescission Schedule)	1993 actual	1994 est.	1995 est.
Program by Activies:			
00.05 PA Toll Road Demonstration Project	...	-91	-188
00.07 Highway Widening Demonstration Project	...	-878	-1,820
00.08 Baltimore-Washington Parkway	...	-12,467	-5,000
00.10 Feasibility, Design, Environmental, and Engineering Studies, (Initial)	...	-3,121	-3,121
00.10 Feasibility, Design, Environmental, and Engineering Studies, (Additional)	...	-512	-1,062
00.14 Climbing Lane Demo.	...	-2,456	-5,087
00.15 Indiana Industrial Corridor	...	-98	-202
00.17 Oklahoma Highway Widening	...	-209	-433
00.24 Highway Demo. Projects, (Initial)	...	-29,246	-29,246
00.24 Highway Demo. Projects, (Additional)	...	-10,453	-21,653
00.26 Corridor D Improvement Project	...	-1,193	-2,471
00.30 Highway Demo. Projects - Preliminary Engineering (Initial)	...	-661	-661
00.30 Highway Demo. Projects - Preliminary Engineering (Additional)	...	-1,375	-2,848
00.38 Trade Enhancement Demo. Project	...	-3,508	-3,508
00.39 Ottumwa Road Extension Project	...	-1,400	-2,900
00.41 Highway 20 Realignment Project	...	-585	-585
00.42 Ramp Relocation & Reconstruction Demonstration Project	... ...	-3,400	-3,400
00.43 US 54 Interchange Project	...	-2,822	-2,822
00.44 Des Moines Inner Loop	...	-931	-931
00.45 Highway Bypass Demonstration	...	-1,507	-3,122
00.46 Railroad-Hwy Crossing Demonstration	...	-19,436	-1,783
00.68 Appalachian Corridor Improvement Project	...	-33,250	....
00.69 Cumberland Gap Tunnel Project	...	-3,500	....
00.70 Lock and Dam No. 4 Bridge	...	-2,333	....
00.71 Congestion Mitigation	...	-933	....
00.72 Cross Westchester Expressway	...	-5,717	....
00.73 Schenectady Bridge	...	-1,867	....
00.74 Columbia Gorge Highway	...	-1,458	....
00.75 Manassas Battlefield Bypass	...	-1,750	....
00.76 Border Highway Project	...	-3,733	....
00.77 Kentucky Bridge Project	...	-7,000	....
10.00 Total obligations (object class 41.00)	....	-157,890	-92,842

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

[MISCELLANEOUS HIGHWAY TRUST FUNDS]

[MINEOLA GRADE CROSSING]
[(HIGHWAY TRUST FUND)]

[For 80 percent of the expenses necessary for the Mineola, New York grade crossing project, as authorized by Public Law 99-591, $7,800,000, to be derived from the Highway Trust Fund and to remain available until expended.] *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

GENERAL STATEMENT
(in thousands of dollars)

	1993 actual	1994 estimate	1995 estimate
Enacted/requested:			
Budget Authority	325,015	7,800	....
Outlays	75,398	105,932	119,934
Assumed Savings:			
Budget Authority	....	-144,872	....
Outlays	....	-7,538	-22,779
Total:			
Budget Authority	325,015	-137,072	....
Outlays	75,398	98,394	97,155

Background

This miscellaneous account contains appropriations derived from highway trust funds for which no new budget authority is requested in FY 1995. Obligations and outlays result from prior-year appropriations.

Assumed Savings

The budget assumes FY 1995 outlay savings of $406 million ($314 million in Federal-aid Highways, $69 million in Miscellaneous Appropriations, and $23 million in Miscellaneous Highway Trust Funds accounts) associated with rescissions based on recommendations of the National Performance Review. However, at the same time, the Administration recognizes that other options are available to achieve these savings. One option, transmitted as an FY 1994 supplemental, would require the secretary to reduce or delay obligations of highway construction projects in FY 1994 sufficient to reduce FY 1995 outlays by $406 million. It is the Administration's intent to work with the Congress to accomplish the means to achieve the necessary savings.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (in thousands of dollars)

	Identification code: 69-9972-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
0.01	Carpool/Vanpool Projects	75	14	14
0.02	Intermodal Urban Demonstration Project	1,753	14,707	14,707
0.03	Highway Safety & Economic Development Demo. Project	32,958	2,263	2,263
0.04	Highway Safety Improvement Demo. Project	3,791	941	941
0.05	Highway Railroad Grade Crossing Safety Demo. Project	....	8,401	8,401
0.07	Highway Demonstration Project	4,628	....	....
0.08	Bridge Capacity Improvement	75	2,577	2,577
0.10	Vehicular Highway Safety Separation Demonstration	1,849	3,006	3,006
0.11	Corridor Safety Demonstration	21,527	3,024	3,024
0.12	Highway Widening and Improvement Demonstration	....	448	448
0.13	Climbing Lane and Safety Demonstration Project	....	1,280	1,280
0.14	Alabama Highway Bypass Demonstration Project	....	1,067	1,067
0.15	Kentucky Bridge Demonstration Project	1,166	1,744	1,744
0.16	Virginia HOV Safety Demonstration Project	....	533	533
0.17	Urban Highway Corridor Bicycle Study	1,343	683	683
0.18	Urban Airport Access Safety Demonstration Project	....	1,280	1,280
0.19	Pennsylvania Reconstruction Demonstration Project	....	2,133	2,133
0.20	Pennsylvania Toll Road Demonstration Project	....	1,067	1,067
0.21	Baltimore-Washington Parkway	3,584	105	105
0.22	Trust Fund Share of Other Highway Programs	....	6,742	6,742
0.23	Highway Safety Research and Development	16	10	10
0.25	Metropolitan Planning	2,663	112	112
0.26	Highway Projects	51,733	74,008	74,008
0.30	Mineola Grade Crossing	....	7,800	....
10.00	Total obligations (object class 41.0)	127,161	133,945	126,145

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code: 69-9972-0-7-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Financing:			
17.00	Recovery of prior year obligations	-3,037	....	....
21.40	Unobligated balance available, start of year	-177,544	-378,435	-252,290
24.40	Unobligated balance available, end of year	378,435	252,290	126,145
40.00	Budget authority (appropriation)	325,015	7,800	....
Relation of obligaitons to outlays:				
71.00	Total obligations	127,161	133,945	126,145
72.40	Obligated balance, start of year	142,260	190,985	218,998
74.40	Obligated balance, end of year	-190,985	-218,998	-225,209
78.00	Adjustment in unexpired accounts	-3,037	....	....
90.00	Outlays	75,398	105,932	119,934

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code: 69-9972-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Distribution on Budget Authority by account:			
Intermodal Urban Demonstration Project	3,200	....	....
Highway Safety and Economic Development	6,400	....	....
Highway Safety Improvement Demonstration	6,000	....	....
Highway Widening and Improvement Demonstration	1,344	....	....
Climbing Lane and Safety Demonstration Project	3,840	....	....
Alabama Highway Bypass Demonstration Project	3,200	....	....
Kentucky Bridge Demonstration Project	6,400	....	....
Virginia HOV Safety Demonstration Project	1,600	....	....
Urban Highway Corridor Bicycle Study	3,392	....	....
Urban Airport Access Safety Demonstration Project	3,840	....	....
Pennsylvania Reconstruction Demonstration Project	6,400	....	....
Pennsylvania Toll Road Demonstration Project	3,200	....	....
Trust Fund Share of Other Highway Programs	2,443	....	....
Highway Projects	273,756	....	....
Mineola Grade Crossing	....	7,800	....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (In thousands of dollars)

Identification code: 69-9972-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Distribution of outlays by accounts:			
Carpool/Vanpool Projects	29	44	34
Intermodal Urban Demonstration	4,673	4,012	8,349
Highway Safety & Economic Development	22,933	13,448	9,690
Highway Safety Improvement Demonstration	6,888	2,490	1,997
Highway Rail Grade Crossing	4,147	5,249	6,707
Highway Demonstration Projects	....	1,918	1,256
Bridge Capacity Improvements	22	539	1,355
Overseas Highways	19	....	....
Vehicular Highway Safety	512	1,439	2,112
Corridor Safety Improvements	3,166	14,903	10,938
Highway Widening and Improvement Demonstration	....	90	233
Climbing Lane and Safety Demonstration	....	256	666
Alabama Highway Bypass Demonstration	....	213	555
Kentucky Bridge Demonstration	15	826	1,220
Virginia HOV Safety Demonstration	....	107	277
Urban Highway Corridor Bicycle Transportation	958	296	460
Urban Airport Access Safety Demonstration	....	256	666
Pennsylvania Reconstruction Demonstration	....	427	1,109
Pennsylvania Toll Road Demonstration	....	213	555
Baltimore-Washington Parkway	14,008	9,531	6,284
Trust Fund Share of Other Highway Programs	7,642	7,721	7,680
Highway Safety Research and Development	1,161	1,741	1,144
University Transportation Centers	....	4,232	2,772
Metropolitan Planning	....	1,126	781
Highway Projects	7,974	32,935	50,362
Nuclear Waste Transportation. Safety	....	48	32
Airport Access Demonstration	1,252	119	78
Acceleration of Projects	....	193	127
Mineola Grade Crossing	....	1,560	2,496

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code: 69-9972-5-7-401 (Rescission Schedule)		1993 actual	1994 est.	1995 est.
	Program by activities:			
00.05	Highway Rail Grade Crossing	....	-4,078	-8,448
00.08	Bridge Capacity Improvement	....	-1,294	-2,681
00.10	Vehicular and Pedestrian Safety Demo. Project	....	-460	-954
00.16	Virginia HOV Safety Demonstration Project	....	-533	-533
00.22	Trust Fund Share of Other Highway Program	....	-197	-408
00.26	Highway Projects, Initial	....	-13,516	-13,516
00.26	Highway Projects, Additional	....	-13,060	-27,052
00.30	Mineola Grade Crossing	....	-4,550	....
10.00	Total obligations (object class 41.0)	....	-37,688	-53,592

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS HIGHWAY TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code: 69-9972-5-7-401	(Rescission Schedule)	1993 actual	1994 est.	1995 est.
	Financing:			
40.35	Appropriation rescission proposal (R94-54)	....	-4,550	....
40.36	Appropriation rescission proposal (unobligated balances), (R94-32A)	....	-42,148	....
40.36	Appropriation rescission proposal (unobligated balances), (R94-54)	....	-98,174	....
43.00	Appropriation (Total)	....	-144,872	....
	Relation of obligations to outlays:			
71.00	Total obligations	....	-37,688	-53,592
72.40	Obligated balance, start of year	....	....	-30,150
74.40	Obligated balance, end of year	....	30,150	60,963
90.00	Outlays	....	-7,538	-22,778

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MOTOR CARRIER SAFETY GRANTS

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(HIGHWAY TRUST FUND)

For the payment of obligations incurred in carrying out the provisions of section 402 of Public Law 97-424 [$68,000,000] *$73,000,000*, to be derived from the Highway Trust Fund and to remain available until expended: *Provided*, That none of the funds in this Act shall be available for the implementation or execution of programs the obligations for which are in excess of [$65,000,000] *$83,000,000* for "Motor Carrier Safety Grants." *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM

	FY 1994	FY 1995	CHANGE
Authorization	80,000	83,000	+3,000
Obligation Limit.	65,000	83,000	+18,000
Liquid. Cash	68,000	73,000	+5,000

GENERAL STATEMENT

Through the Motor Carrier Safety Assistance Program (MCSAP), FHWA and the States provide comprehensive, nationwide programs to increase the safety and promote the productivity of motor carriers. The FY 1995 program will begin nationwide deployment of advanced inspection and data collection technologies that will significantly improve the efficiency of the roadside vehicle and driver inspection programs. It will also fund State and local traffic enforcement to identify problem commercial drivers and will assist the States in meeting mandated fuel tax and registration uniformity by September 1996.

The FY 1995 program allows funding of additional safety and productivity initiatives provided in the ISTEA, including hazardous materials training and enforcement, drug interdiction efforts, research and development, public awareness campaigns, accident data collection, and size and weight enforcement.

For FY 1995 an **$83 million** program level obligation limitation is requested, the FY 1995 ISTEA authorization level.

The MCSAP funds State enforcement of Federal truck and bus safety requirements or compatible State safety requirements. The program provides grants to States for programs to reduce the number and severity of accidents involving commercial motor vehicles, including trucks transporting hazardous materials and buses. MCSAP also provides grant funds to the States to assist them in meeting the statutory deadline for joining base State agreements for fuel tax and registration.

Title IV of the ISTEA reauthorized the program, providing $479 million of new contract authority for fiscal years 1992 through 1997 as follows: FY 1992, $65 million; FY 1993, $76 million: FY 1994, $80 million; FY 1995, $83 million; FY 1996, $85 million; and $90 million in FY 1997. For FY 1993, $65 million was appropriated and for FY 1994 the same level of funding was requested.

NARRATIVE EXPLANATIONS OF CHANGES

DETAILED FY 1995 PROGRAM JUSTIFICATION

The MCSAP is comprised of six areas, Comprehensive Motor Carrier Safety Programs, ISTEA Program Elements, Uniformity Initiatives, Advancement of Congressional Mandates, Drug Interdiction Assistance Program and Administrative Takedown. The following provides justification material for each of these areas:

Comprehensive Motor Carrier Safety Programs

For the basic program, $60.962 million will continue the States' current activities and will fund additional comprehensive motor carrier safety program activities. The core of the States' current activities are uniform roadside driver and vehicle inspections. In addition to the immediate safety benefits of removing unsafe vehicles and drivers from the highway, the data from these inspections is used to target unsafe motor carriers for in-depth reviews by Federal and State investigators to bring these companies into compliance with the minimum safety requirements. Funding for the basic program in FY 1995 will allow current level activities plus sufficient funds for officers' salaries and for replacement of aging equipment that has been deferred in recent years.

The funds will allow the States to implement activities beyond the basic program to begin to establish more comprehensive motor carrier safety programs. The 1995 program level will allow the States to increase their staff and participation in in-depth compliance reviews of motor carriers. The Federal commercial drivers license regulations already apply to intrastate carriers and drivers. Over the next year, the drug and alcohol testing as well as the hazardous materials regulations will begin to apply to intrastate carriers. Due to this expansion of the regulated body, the number of carriers subject to the Federal safety and hazardous materials regulations will double to about 500,000 carriers at a time when the number of Federal safety investigators is being reduced. Full MCSAP funding will help to balance these program demands through increased State enforcement activities.

Other activities that will be funded include deployment of advanced inspection technologies and of roadside data collection and communication systems. Improvements in the efficiency, quality, and speed of roadside inspections will be gained with advanced technologies. Roadside data collection and communication will make critical safety information available to other enforcement officers as soon as it is known. Other comprehensive motor carrier safety program initiatives include, for example, further development of ensuring driver medical qualifications through the CDL, providing education and technical assistance to private motor carriers of passengers, and developing new program evaluation processes.

Further, the funds will strengthen the program by providing increased safety compliance activities by the States along the Mexican border. With the passage of the North American Free Trade Agreement (NAFTA), the flow and mixture of traffic across the border will increase. These grant funds will assist the States in meeting these new demands on their safety compliance programs.

ISTEA Program Elements

A major goal of FHWA is to implement a comprehensive motor carrier program as provided in the ISTEA. The following funding advances that effort.

- **$6.375 million** for commercial motor vehicle traffic enforcement. Since driver error is the major factor in accidents, funding at this level will allow State MCSAP and local agencies to focus enforcement resources on problem drivers.
- **$775,000** allocated to the States to conduct research and development of innovative strategies and technologies to improve comprehensive motor carrier safety programs. Focus on technology that will test and evaluate commercial motor vehicle braking systems using a variety of technologies (roller dynamometer, skid pad, and infra-red) and the enhancement of the pen-based inspection data collection will be continued.
- **$850,000** for Public Education for the States to disseminate the national campaign materials developed in FY 93 and 94 to educate the public on sharing the road with commercial vehicles.
- **$1 million** to help the States roadside enforcement of the Commercial Driver's License (CDL) requirements. States will perform a CDL check with each driver and vehicle roadside inspection.
- **$1.5 million** for training State MCSAP inspectors to enforce hazardous materials regulations.
- **$2 million** to implement the National Governor's Association uniform reporting of truck and bus accident data. This will provide nationwide, uniform data to evaluate and improve motor carrier safety programs.

Uniformity Initiatives

The ISTEA mandated that, after September 1996, States may only collect motor carrier fuel tax and registration fees through base State agreements such as the International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA). Uniformity among the States in fuel tax and registration requirements will significantly reduce the paperwork burden and administrative costs on the motor carrier industry.

If the States are not in the agreements by the mandated deadline, they jeopardize their ability to collect critical State highway construction and maintenance funds. Since it takes approximately nine months for a State to become operational once it joins these base state agreements, the majority of the States would be incurring start-up costs in FY 1995. Actual State expenses to meet this mandate far exceed the Federal funding recommended.

The FY 1995 request for **$5 million** will fund grants to the States and others to ensure the States join the IFTA and IRP. Also included in the request is **$1 million** to support the Base State Working Group which was assembled to provide technical assistance to the States and help resolve disputes among States arising from the distribution of fees collected.

In addition, **$2 million** will continue the development and pilot testing of the Commercial Vehicle Information System (CVIS). The CVIS will provide safety fitness information on motor carriers at the time the trucks and buses are registered.

Advancement of other Congressional mandates

The requested funding will not only substantially increase the efficiency and effectiveness of the MCSAP, but also assist in the advancement of several Congressionally-mandated laws and regulatory changes. With an expanded program and additional funding, it may be feasible to integrate many of these initiatives into the program activities outlined above. These new initiatives include:

- enhanced hazardous material enforcement, especially cargo tanks and radioactive material laden vehicles (HMTUSA),
- expansion of drug and alcohol testing rules to intrastate commercial motor carrier (1992 DOT Appropriations Act),
- State reviews and training associated with the implementation of the Safe Food Transportation Act, and

- integration of commercial motor vehicle drivers' data on traffic violations with the safety data on the driver's employing motor carrier.

Drug Interdiction Assistance Program (DIAP)

$500,000 will be made available for the DIAP in FY 1995. This will provide funds to the States to intercept drugs being transported on trucks, testing and evaluation of new drug detection technologies, coordinate commercial motor vehicle drug interdiction with other State, local and Federal agencies, and train enforcement officers on drug interdiction strategies. This program has already resulted in 170 seizures totalling $811 million which includes thousands of pounds of marijuana and cocaine along with currency and property.

Administrative takedown

The request includes **$1.0375 million** (1.25% of the requested level of $83 million) of administrative takedown funds. The funds are needed to continue funding of several initiatives that are crucial to the effectiveness of the overall program. These initiatives include: development and delivery of training to States, technical support of SAFETYNET, technology transfer to the States, translation of training materials and safety regulations, development and implementation of Spanish training programs, and administration of other NAFTA initiatives designed to achieve regulatory compatibility and consistent enforcement of safety regulations throughout the nation.

FY 1995 Budget Request

The FHWA is requesting an $83 million MCSAP obligation limitation for FY 1995. In order to meet payments of MCSAP obligations, FHWA is also requesting liquidating cash appropriations of $73 million in FY 1995.

18-Feb-94

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM

DISTRIBUTION OF RESOURCES
(Dollars in Thousands)

	1993	1994	Change	1995
Maintenance of the Basic Program	$50,438	$51,088	9,874	60,962
ISTEA Program Elements				
Traffic Enforcement	4,250	4,250	2,125	6,375
CDL Enforcement	1,000	1,000	0	1,000
Hazardous Materials Training	1,500	1,500	0	1,500
Truck & Bus Accident Grants	1,000	1,000	1,000	2,000
Research and Development	500	500	275	775
Public Education	350	350	500	850
Uniformity Issues				
Uniformity Grants	2,500	3,000	2,000	5,000
Uniformity Working Group	500	...	1,000	1,000
Commercial Vehicle Info. Sys. (not to exceed)	1,500	1,500	500	2,000
Administrative Takedown	812	812	226	1,038
Drug Interdiction Assistance Program	650	...	500	500
TOTAL	$65,000	$65,000	18,000	$83,000
Funding Source				
New authority	64,444	53,444	3,000	56,444
Unobligated balance	556	11,556	15,000	26,556

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MOTOR CARRIER SAFETY GRANTS

Program and Financing (in thousands of dollars)

Identification code: 69-8048-0-7-401	1993 Actual	1994 Estimate	1995 Estimate
Program by Activities:			
00.01 Motor Carrier grants	64,177	64,187	81,962
00.02 Administration and research	813	813	1,038
10.00 Total Obligations (object class 25.0)	64,990	65,000	83,000
Financing:			
21.49 Contract authority	-556	-11,566	-26,566
Unobligated balance, end of year:			
24.49 Contract authority	11,566	26,566	26,566
39.00 Budget authority	76,000	80,000	83,000
Budget Authority:			
40.00 Appropriation	65,000	68,000	73,000
40.49 Portion applied to liquidate contract authority	-65,000	-68,000	-73,000
43.00 Appropriation (total)	......	......	......
Permanent:			
69.10 Contract Authority	76,000	80,000	83,000
Relation of obligations to outlays:			
71.00 Obligations incurred, net	64,990	65,000	83,000
Obligated balance, start of year:			
72.40 Appropriation	7,392	9,426	11,737
72.49 Contract authority	31,759	31,749	28,749
Obligated balance, end of year:			
74.40 Appropriation	-9,426	-11,737	-11,291
74.49 Contract authority	-31,749	-28,749	-38,749
90.00 Outlays	62,966	65,689	73,446

STATUS OF CONTRACT AUTHORITY(in thousands of dollars)

Identification code: 69-8048-0-7-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
Balance, start of year	32,316	43,316	55,316
Contract authority	76,000	80,000	83,000
Appropriation to liquidate contract authority	-65,000	-68,000	-73,000
Balance, end of year	43,316	55,316	65,316

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code: 69-8048-0-7-401		1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
25.2	Other Services	813	813	1,038
41.0	Grants,subsidies, and contributions	64,177	64,187	81,962
99.9	Total Obligations	64,990	65,000	83,000

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

HIGHWAY RELATED SAFETY GRANTS

(LIQUIDATION OF CONTRACT AUTHORITY)

(HIGHWAY TRUST FUND)

(INCLUDING TRANSFER OF FUNDS)

For the payment of obligations incurred in carrying out the provisions of title 23, United States Code, section 402 administered by the Federal Highway Administration, to remain available until expended, $10,000,000 to be derived from the Highway Trust Fund: *Provided*, That not to exceed $100,000 of the amount appropriated herein shall be available for "Limitation on general operating expenses": *Provided further*, That none of the funds in this Act shall be available for planning or execution of programs the obligations for which are in excess of $10,000,000 in fiscal year [1994] *1995* for "Highway Related Safety Grants"; *Provided further, That of the funds authorized for section 402 highway safety programs in section 1003(a)(7) of Public Law 102-240 for highway safety programs, $20,000,000 in unobligated contract authority is rescinded. (Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
HIGHWAY RELATED SAFETY GRANTS

	(Dollars in Thousands)		
	FY 1994	FY 1995	CHANGE
Contract Authorization	20,000	20,000	0
Recission	0	-20,000	-20,000
Obligation Limitation	10,000	10,000	0
Liquidating Cash	10,000	10,000	0

Background

Section 402 of Title 23 authorizes funds to assist States, localities, Indian Tribes and the Territories of American Samoa, Guam, the Virgin Islands, and the Northern Marianas in implementing highway safety programs. Rulemaking in 1988 identified seven priority program areas as the most effective for Federal funding under Section 402. An additional priority program area involving pedestrian and bicycle safety was added in 1991. The most effective FHWA program areas are "Roadway Safety" (principally covering activities directly supporting the selection and implementation of highway safety construction and traffic operational improvements) and "Pedestrian/Bicycle Safety" (a jointly funded priority program area with NHTSA).

The program was intended to strengthen State and local highway safety programs, and to help guide and finance additional action at the State and local levels. The Federal role is to provide leadership, guidance, and financial aid to assist State and local governments in initiating new highway safety programs. Emphasis is placed on activities to help State and local highway agencies develop and implement systems and procedures for planning and carrying out safety construction and operational improvements and programs involving pedestrian and bicycle safety.

The highway-related FHWA portion of the Section 402 program serves as a significant planning resource and catalyst for State and local safety efforts. Funded activates such as improved safety data collection and programming systems, special problem studies and analyses, training and technical guides, and equipment advances have done much to improve roadway safety problem identification and countermeasure selection. In the process, interaction with vehicle and driver-related safety programs have been improved and a needed emphasis given local problems such as traffic operations, pedestrians, and bicycle safety.

In order to meet payments of obligations, FHWA is requesting a liquidating cash appropriation in the amount of $10 million for FY 1995.

FY 1995 PROGRAM OBJECTIVES

As in the past, these funds may be used to conduct highway safety programs designed to reduce accidents, deaths and injuries including development and implementation of manpower training programs and projects. These funds will be administered by the designated State highway safety agency.

The ISTEA authorized $17 million for this program in FY 1992 and $20 million annually for Fiscal Years 1993-1997. However, the funding remains at $10 million annually where it has been since 1982 when the obligation limitation was decreased from $28 million to $10 million.

Section 402 activities administered by the FHWA emphasize safer roadway related countermeasures and programs, including essential program and project support functions such as accident records, hazardous location lists, technology applications, and input to a State's safety management system required by the ISTEA. Maintaining and increasing this capacity will be even more important in the future.

Recent legislative requirements and special FHWA safety initiatives justify full funding for this program. The Safety Management System (SIVIS) required by the ISTEA must be implemented in each State during FY 1995, and should greatly increase the efficiency of our safety program. The additional funds will be needed for initial development and implementation of the SIVIS. As the lead agency in this multi-modal effort (in cooperation with FRA, FTA, and NHTSA), we must provide the States with funds to develop and implement their SIVIS which will serve as an umbrella for all safety activities.

Intermodal efforts to improve Pedestrian/Bicycle Safety also require increased funding support. More than 6,000 pedestrians and bicyclists die in traffic-related accidents each year. Additional fund are needed by States for pedestrian safety activities relating to children and older people. The additional funds would be used for new initiatives to:

- Increase voluntary usage of bicycle helmets and bicycle safety training for elementary school children.
- Market the Walk Alert community safety program in more communities.
- Implement additional proven effective pedestrian/bicycle countermeasures for high risk groups and areas.

The use of Section 402 funds to support our safety construction programs has been a significant factor in the effectiveness of these programs. The Safety construction programs will be a key resource for implementing major portions of the States' safety management system. Evaluations show these programs have saved approximately 29,000 lives and prevented about 640,000 nonfatal injuries since 1974.

In summary, this is an effective program. Safety improvements to our highway system have continued to show excellent payoff, returning in benefits more than twice the costs from accident reductions alone. This effectiveness can only be maintained through proper advance planning which the 402 program financially supports. It will help strengthen the economy, support transportation safety, and foster intermodalism; and we recommend it be fully funded.

PROPOSED RESCISSION

In FY 1995, $20 million of prior year contract authority will be rescinded because these funds are not available for obligation due to obligation limitations.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

HIGHWAY-RELATED SAFETY GRANTS

FY 1995 Liquidating Cash Appropriation Request

For FY 1995, a liquidating cash appropriation for $10 million is requested to liquidate obligati incurred against contract authority. The following table reflects outlays, liquidating cash, and available authority for this program.

OUTLAYS AND LIQUIDATING CASH	Amount (in thousands)
Cash balance, 9/30/92	$11,080
FY 1993 liquidating cash appropriation	10,000
Less: FY 1993 outlays (est.)	-7,331
Cash balance, 9/30/93	13,749
FY 1994 liquidating cash request	10,000
Less: FY 1994 outlays (est.)	-9,187
Cash balance, 9/30/94	14,562
FY 1995 liquidating cash request	10,000
Less: FY 1995 outlays (est.)	-11,673
Cash balance, 9/30/95	12,889

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

HIGHWAY-RELATED SAFETY GRANTS

Status of Unfunded Authority

	Amount (in thousands)
Unfunded,9/30/92	$11,385
FY 1993 Authority	20,000
FY 1993 Liquidating cash appropriation	-10,000
Unfunded,9/30/93	21,385
FY 1994 Authority	20,000
FY 1994 Liquidating cash appropriation	-10,000
Unfunded,9/30/94	31,385
FY 1995 Authority (est.)	20,000
FY 1995 Liquidating cash appropriation (est.)	-10,000
FY 1995 Contract Authority rescinded	-20,000
Unfunded,9/30/95	21,385

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

HIGHWAY RELATED SAFETY GRANTS

Program and Financing (in thousands of dollars)

Identification code: 69-8019-0-7-401	1993 Actual	1994 Estimate	1995 Estimate
Program by Activities:			
00.01 State and Communtiy grants	9,900	9,900	9,900
00.02 Administration of grant programs	100	100	100
10.00 Total Obligations (object class 25.0)	10,000	10,000	10,000
Financing:			
21.49 Contract authority	-9,336	-19,336	-29,336
Unobligated balance, end of year:			
24.49 Contract authority	19,336	29,336	19,336
39.00 Budget authority	20,000	20,000	....
Budget Authority:			
40.00 Appropriation	10,000	10,000	10,000
40.49 Portion applied to liquidate contract authority	-10,000	-10,000	-10,000
43.00 Appropriation adjusted (total)	....	....	....
Permanent:			
69.10 Contract Authority	20,000	20,000	20,000
69.36 Contract Authority rescinded (unobligated bal.)	....	....	-20,000
Relation of obligations to outlays:			
71.00 Obligations incurred, net	10,000	10,000	10,000
Obligated balance, start of year:			
72.40 Appropriation	11,080	10,102	10,915
72.49 Contract authority	2,049	2,049	2,049
Obligated balance, end of year:			
74.40 Appropriation	-10,102	-10,915	-11,322
74.49 Contract authority	-2,049	-2,049	-2,049
77.00 Adjustments in expired accounts	....	....	....
78.00 Adjustments in unexpired accounts	....	....	....
90.00 Outlays	10,978	9,187	9,593

STATUS OF CONTRACT AUTHORITY(in thousands of dollars)

Identification code: 69-8019-0-7-401	1993 ACTUAL	1994 ESTIMATE	1995* ESTIMATE
Balance, start of year	11,385	21,385	31,385
Contract authority	20,000	20,000	20,000
Appropriation to liquidate contract authority	-10,000	-10,000	-10,000
Contract authority rescinded	....	....	-20,000
Balance, end of year	21,385	31,385	21,385

OBJECT CLASSIFICATION (in thousands of dollars)

Identification code: 69-8019-0-7-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
25.2 Other Services..........	100	100	100
41.0 Grants,subsidies, and contributions..........	9,900	9,900	9,900
99.9 Total Obligations..........	10,000	10,000	10,000

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

RIGHT-OF-WAY REVOLVING FUND

(LIMITATION ON DIRECT LOANS AND LIQUIDATION OF CONTRACT AUTHORIZATION)

(HIGHWAY TRUST FUND)

During fiscal year [1994] *1995* and with the resources and authority available, gross obligations for the principal amount of direct loans shall not exceed $42,500,000. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

RIGHT-OF-WAY REVOLVING FUND
(Dollars in Thousands)

	FY 94 Actual	FY 95 Request	Change
Loan Limitation	$42,500	$42,500	-0-

The Federal-Aid Highway Act of 1968 authorized $300 million for the establishment of a right-of-way revolving fund. This fund is used to make cash advances to States to purchase critical right-of-way parcels in rapidly developing corridors in sufficient time before developmental pressures escalate the cost of land to a point of that can jeopardize the feasibility of actually constructing the highway.

Increasingly, States are also using the revolving fund as a tool to help environmentally sensitive areas by targeting specific parcels for acquisition in future transportation corridors that have been identified through a transportation land use planning process.

The following table indicates the high level of activity for the past 3 years and the constraints placed on the Revolving Fund by Congress through obligational restrictions:

FY	Total Requests	Projected Savings	Congressional Obligational Limitations
93	$132,560,000	$122,559,000	$42,500,000
92	234,000,000	502,000,000	42,500,000
91	179,000,000	498,000,000	42,500,000

The above table reveals the strong demand for the use of revolving funds while at the same time there are few funds available for distribution.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

RIGHT-OF-WAY REVOLVING FUND

Program and Financing (in thousands of dollars)

Identification code: 69-8402-0-8-401	1993 Actual	1994 Estimate	1995 Estimate
Program by Activities:			
10.00 Total Obligations (object class 25.0)	63,629	42,500	42,500
Financing:			
17.00 Recovery of prior year obligations	-32,348	....	....
Unobligated balance, start of year:			
21.40 Appropriation	-103,954	-93,802	-93,802
Unobligated balance, end of year:			
24.40 Appropriation	93,802	93,802	93,802
68.00 Budget Authority (gross): Spending authority from offsetting collections	21,129	42,500	42,500
Relation of obligations to outlays:			
71.00 Obligations incurred, net	63,629	42,500	42,500
Obligated balance, start of year:			
72.40 Appropriation	66,584	67,541	67,541
Obligated balance, end of year:			
74.40 Appropriation	-67,541	-67,541	-67,541
78.00 Adjustments in unexpired accounts	-32,348	....	....
87.00 Outlays (gross)	30,324	42,500	42,500
Adjustments to budget authority and outlays:			
88.40 Deductions from offsetting collections: Non-Federal sources	-21,129	-42,500	-42,500
89.00 Budget authority (net)	....	....	....
90.00 Outlays	9,195	....	....

STATUS OF DIRECT LOANS (in thousands of dollars)

Identification code: 69-8402-0-8-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
Position with respect to appropriations act limitation on obligations:			
1111 Limitation on direct loans	38,745	42,500	42,500
1150 Total direct loan obligations	38,745	42,500	42,500
Cumulative balance of direct loans outstanding:			
1210 Outstanding, start of year	129,462	138,657	138,657
1231 Disbursements: Direct Loans disbursements	30,324	42,500	42,500
1251 Repayments: Repayments and prepayments	-21,129	-42,500	-42,500
1290 Outstanding, end of year	138,657	138,657	138,657

REVENUE AND EXPENSES (in thousands of dollars)

Identification code: 69-8402-0-8-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
0101 Revenue	21,129	42,500	42,500
0102 Expenses	-30,324	-42,500	-42,500
0109 Net income or loss (-)	-9,195	....	....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT

Appropriations language for this project is contained in Title III-General Provisions, Sec. 339 of the Department of Transportation and Related Agencies Appropriations Act, 1993. No new appropriations are requested for FY 1995.

BACKGROUND

The Congress appropriated $9.6 million in FY 1993 to cover the estimated subsidy costs of making a direct loan (or loans) not to exceed $120 million to the Transportation Corridor Agencies (TCA) Hills public toll road. Any such loan (or loans) will be available for five years only upon completion of the toll road and only to the extent that revenues from toll operations and standard reserves are insufficient for debt service. The appropriations language also stipulates that: 1) no more than 20 percent of the total loan amount may be disbursed in any one year of operation; 2) any such loan (or loans) shall draw interest at the 30-year United States Treasury Bond rate on the date of disbursal; and 3) any loan (or loans) shall be repaid in not more than 30 years.

As required by the Federal Credit Reform Act of 1990, program and financing accounts have been established to record estimated subsidy costs and cash flows arising from direct loan obligations for the Orange County toll road. A financial analysis performed for FHWA indicates that the $9.6 million appropriated in FY 1994 should be adequate to cover any unreimbursed costs to the Federal government associated with making loans up to $120 million for the Orange County toll road (implying an eight percent subsidy rate).

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT (PROGAM ACCOUNT)

Program and Financing (in thousands of dollars)

Identification code: 69-0543-0-1-401		1993 Actual	1994 Estimate	1995 Estimate
	Program by Activities:			
10.00	Total Obligations (object class 41.0)	9,600	....	....
	Financing:			
40.00	Budget authority (appropriation)	9,600	....	....
	Relation of obligations to outlays:			
71.00	Obligations incurred, net	9,600	....	....
	Obligated balance, start of year:			
72.40	Appropriation	....	9,600	9,600
	Obligated balance, end of year:			
74.40	Appropriation	-9,600	-9,600	-9,600
90.00	Outlays	....	....	....

SUMMARY OF LOAN LEVELS, SUBSIDY BUDGET AUTHORITY, AND OUTLAYS (in thousands of dollars)

Identification code: 69-0543-0-1-401		1993 Actual	1994 Estimate	1995 Estimate
	Direct loan levels supportable by subsidy BA:			
11.59	Total direct loan levels	120,000	....	....
	Direct loan subsidy rates (in percents):			
13.20	Toll road loan(s)	8.00	....	....
13.29	Weighted average subsidy rate	8.00	....	....
	Direct loan subsidy budget authority:			
13.30	Toll road loan(s)	9,600	....	....
13.39	Total subsidy budget authority	9,600	....	....
	Direct loan subsidy outlays:			
13.49	Total subsidy outlays	....	....	....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

ORANGE COUNTY (CA) TOLL ROAD DEMONSTRATION PROJECT
DIRECT LOAN FINANCING ACCOUNT

Program and Financing (in thousands of dollars)

Identification code: 69-4200-0-3-401	1993 Actual	1994 Estimate	1995 Estimate
Program by Activities:			
10.00 Total Obligations (object class 33.0)	120,000	....	....
Financing:			
39.00 Financing authority	120,000	....	....
Financing Authority (permanent):			
67.15 Authority to borrow (indefinite)	110,400	....	....
68.00 Spending authority from offsetting collections	9,600	....	....
Relation of obligations to outlays:			
71.00 Obligations incurred, net	120,000	....	....
72.10 Receivables in excess of obligations start of year	....	-9,600	-9,600
Obligated balance, start of year:			
72.40 Appropriation	....	120,000	120,000
74.10 Receivables in excess of obligations end of year	9,600	9,600	9,600
Obligated balance, end of year:			
74.40 Appropriation	-120,000	-120,000	-120,000
87.00 Outlays	9,600	....	....
Adjustments to financing authority and outlays:			
Deductiond for offsetting collections:			
88.00 Federal Sources: Payments from program account	-9,600	....	....
89.00 Financing authority (net)	110,400	....	....
90.00 Outlays	....	....	....

STATUS OF DIRECT LOANS (in thousands of dollars)

Identification code: 69-4200-0-3-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
Positions with respect to apprpriations act limitation on obligations:			
11.11 Limitation on direct loans	120,000.00	....	....
11.50 Total direct loan obligations	120,000	....	....

FINANCIAL CONDITION (in thousands of dollars)

Identification code: 69-4200-0-3-401	1993 ACTUAL	1994 ESTIMATE	1995 ESTIMATE
ASSETS:			
1000 Fund balance with Treasury and cash:			
Fund balance with Treasury	120,000	120,000	....
1999 Total Assets	120,000	120,000	....
LIABILITIES:			
2010 Accounts Payable: Public	120,000	120,000	....
2999 Total Liabilities	120,000	120,000	....
EQUITY:			
3999 Total Equity	....	....	....

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS TRUST FUNDS

Funds received by this account come completely from non-Federal sources. FHWA holds these funds in trust until they are outlayed. The following programs are included in this fund:

1. Cooperative Work, Forest Highways (Proprietary Receipts). Contributions are received from States and counties in connection with cooperative engineering, survey, maintenance and construction projects for Forest Highways. The FY 1995 estimate is $1,500,000.

2. Technical Assistance, U.S. Dollars Advanced from Foreign Governments (Proprietary Receipts). The Federal Highway Administration renders technical assistance and acts as agent for the purchase of equipment and materials for carrying out highway programs in foreign countries. For FY 1995, we expect to render these services in China, Barbados, and Turkey. The FY 1995 estimate is $495,000.

3. Contributions for Highway Research Programs (Governmental Receipts). In association with the General Services Administration and the Department of Defense, tests of highway equipment are conducted for the purpose of establishing performance standards upon which to base specifications for use by the Government in purchasing such equipment. The FY 1995 estimate is $500,000.

4. Advances from State Cooperating Agencies (Proprietary Receipts). Funds are contributed by the state highway departments or local subdivisions thereof for construction and/or maintenance of roads or bridges. The work is performed under the supervision of the Federal Highway Administration. The FY 1995 estimate is $5,000,000.

5. International highway transportation outreach (Proprietary Receipts). Funds are collected to inform the domestic highway community of technological innovations, to promote highway transportation expertise internationally, and to increase transfers of transportation technology to foreign countries. The FY 1995 estimate is $5,000.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code:	1993 Actual	1994 Estimate	1995 Estimate
Program by Activities:			
00.01 Cooperative work, forest highways	1,877	2,086	1,500
00.02 Technical assistance, U.S. dollars advanced from foreign governments	5	775	495
00.03 Contributions for highway research programs	304	696	500
00.04 Advances from State cooperating agencies	1,379	30,582	5,000
00.05 International highway transportation outreach program	....	5	5
10.00 Total obligations	3,565	34,144	7,500
Financing:			
Unobligated balance available, start of year:			
21.40 Appropriation	-24,323	-28,760	-2,116
Unobligated balance available, end of year:			
24.40 Appropriation	28,760	2,116	2,116
Budget Authority:			
Permanent:			
60.05 Appropriation (indefinite)	8,002	7,500	7,500

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS TRUST FUNDS

Program and Financing (in thousands of dollars)

Identification code: 69-9971-0-7-999	1993 Actual	1994 Estimate	1995 Estimate
Relation of obligations to outlays:			
71.00 Total obligations	3,564	34,144	7,500
72.40 Obligated balance, start of year: Appropriation	6,944	4,806	6,298
74.40 Obligated balance, end of year: Appropriation	-4,806	-6,298	-2,192
90.00 Outlays	5,702	32,652	11,606
Distribution of budget authority by account:			
Cooperative work, forest highways	1,247	1,500	1,500
Technical assistance, U.S. dollars advanced from foreign governments	....	495	495
Contributions for highway research programs	438	500	500
Advances from State cooperating agencies	6,347	5,000	5,000
Equipment, Supplies, etc. for cooperating Countries	....	....	....
International highway transportation outreach program	....	5	5
Distribution of outlays by account:			
Cooperative work, forest highways	1,960	1,961	1,622
Technical assistance, U.S. dollars advanced from foreign governments	50	688	516
Contributions for highway research programs	270	646	534
Advances from State cooperating agencies	3,422	29,042	8,697
Equipment, Supplies, etc. for cooperating Countries	....	310	233
International highway transportation outreach program	....	5	5

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

MISCELLANEOUS TRUST FUNDS

'Object Classification (in thousands of dollars)

Identification code: 69-9971-0-7-999	1993 Actual	1994 Estimate	1995 Estimate
Personnel compensation:			
11.1 Full-time permanent	....	606	628
12.1 Civilian personnel benefits	....	151	156
25.2 Other services	2,186	3,562	2,500
32.0 Land and structures	1,379	29,825	4,216
99.9 Total obligations	3,565	33,538	6,872

Personnel Summary

Total compensable workyears: Full-time equivalent employment	....	14	14

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

BUREAU OF TRANSPORTATION STATISTICS

GENERAL STATEMENT

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, section 6006 (49 U.S.C. 111), established in the Department of Transportation a new Bureau of Transportation Statistics. Its Director is appointed by the President with the advice and consent of the Senate to a four-year term.

The work of the Bureau consist of: compiling transportation statistics, implementing a long-term data collection program, issuing guidelines for information collection, coordination of information collection, making statistics accessible, and identifying information needs.

Financing of the Bureau's operations is authorized as contract authority out of the Highway trust Fund at $5 million for 1992, $10 million for 1993, $15 million for 1994 and 1995, $20 million for 1996, and $25 million for 1997. The contract authority is included in the Federal-Aid Highways program and subject to the obligation limitation applicable to that program. Funds are transferred to the Bureau from Federal-Aid Highways, where all obligations, outlays, and staff are counted.

Obligations are estimated at $15 million in 1994 and $15 million in 1995. Staffing is estimated at 12 FTE in 1994 and 1995. Obligations incurred under allocations from other accounts are included in the schedules of the parent appropriation as follows: Department of Transportation, Federal Highway Administration, Federal-Aid Highways.

02/17/94

MOTOR CARRIER SAFETY
FY 1995 CONGRESSIONAL' SUBMISSION

(Dollars in Thousands)

		ADJUSTMENTS TO BASE								
	FY 1994 ENACTED	FY 1995 PAY RAISE	LOCALITY PAY ANNUAL.	LESS ONE COMP DAY	MERIT PAY & WIGs	HEALTH BENEFITS	FTE REDUCT.	FY 1994 ADJUSTED BASE	PROGRAM CHANGES	TOTAL FY 1995 REQUEST
PERSONNEL RESOURCES:										
FTP Positions	691							691		691
Total FTE's:	648						(10)	638		638
Full–Time Permanent FTEs	623						(10)	613		613
All Other	17							17		17
Exempt	8							8		8
FINANCIAL RESOURCES:										
Salaries and Benefits	$33,782	$587	$110	($126)	$625	$154	($259)	$34,873		$34,873
Travel	5,674							5,674		5,674
Transportation	381							381		381
Rent, Comm., & Util.	309							309	11	320
Printing	0							0		0
Other Services:	10,928							10,928	3,636	14,564
Contract Programs	(5,345)							(5,345)	(3,459)	(8,804)
All Other	(5,583)							(5,583)	(177)	(5,760)
Supplies and Materials	304							304		304
Equipment	1,641							1,641		1,641
Total Limitation	$53,019	$587	$110	($126)	$625	$154	($259)	$54,110	$3,647	$57,757

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FY 1995 MOTOR CARRIER PROGRAM

GENERAL STATEMENT

The Federal Highway Administration's (FHWA) FY 1995 budget for the Motor Carrier Program reflects the resources necessary for implementation of programs authorized through 1995 by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The FY 1995 program totals $57.757 million, an increase of $4.738 million over the FY 1994 budget request. Note that the Motor Carrier program is funded via FHWA's Limitation on General Operating Expenses. The following narrative is for justification purposes; funding and FTEs are included in the General Operating Expenses section of this budget document.

Included in the $57.757 million funding request is the motor carrier research program for FY 1995 totalling $8.804 million, an increase of $3.459 million over the FY 1994 level. A separate justification for this program is included under the section, GOE Contract Programs.

The remaining funding of $48.953 million represents the resources necessary to fund program operations including salaries, travel, ADP, etc. There are no program funding increases requested for program operations in FY 1995. The following narrative provides justification for increases to the base and a description of program accomplishments and initiatives.

In formulating this budget a business planning approach was utilized to develop program priorities and identify resource requirements necessary to implement those priority initiatives. This process was particularly beneficial in developing the $8.804 million FY 1995 research program.

MOTOR CARRIER PROGRAM

FY 1995 FINANCIAL OVERVIEW

The FY 1995 Office of Motor Carriers (OMC) program totals $57.757 million, representing a $4.738 million increase over the FY 1994 Congressional budget request. This increase is attributable to Adjustments to Base including mandatory built-in operating cost increases to salaries and benefits such as merit pay compensation, health benefit increases and inflation as well as a minor offset to allow for one less compensable day in FY 1995. Program Changes increases total $3.647 million which includes enhanced funding of the motor carrier contract research program, and other programs.

	($ in thousands)
FY 1994 PRESIDENT'S BUDGET REQUEST	$ 53,019
ADJUSTMENTS TO BASE	1,091
FY 1995 Pay Raise	587
Locality Pay Annualization	110
One compensable day	-126
Merit Pay and WIGs	625
Health Benefits	154
FTE Reduction	-259
PROGRAM CHANGES	3,647
Rent	11
Other	177
Research and Development	3,459
TOTAL FY 1995 FUNDING	57,757

NARRATIVE EXPLANATIONS OF CHANGES

ADJUSTMENTS TO BASE

FY 1995 Pay Raise + 587

This amount is requested to fund an anticipated 1.6% pay raise for 195 applicable work days in FY 1995.

Locality Pay Annualization +110

This amount is to fund the locality pay annualization cost for FY 1995 that was enacted in FY 1994.

One compensable day - 126

This decrease is an adjustment for one less compensable day in FY 1995 compared to 261 days in FY 1994.

Merit Pay and Within Grades + 625

This amount includes costs associated with merit performance for GM and GS employees. This amount also includes mandatory within-grade increases required for those employees having spent the required time period at their present step-in grade while maintaining at least a satisfactory work performance rating.

Health Benefits + 154

Annual rate increases for the government share of health insurance premiums are provided by the Office of Personnel Management at the beginning of each fiscal year. The amount requested under this category is based on past budgeted health benefit increases plus an inflationary factor of 10 percent, since actual rates for FY 1995 have not been developed.

FTE Reduction - 259

The amount of this reduction represents the cost associated with the elimination of 10 FTEs in FY 1995. This staffing reduction was mandated by President Clinton in Executive Order 12839. It is noted that the gross reduction for the 10 FTEs is $518,000. This amount is offset by $259,000 by moving the funds associated with contract funding of 5 FTEs from the other services object class to salaries and benefits to facilitate the relocation of the Howard Academy personnel to FHWA.

PROGRAM CHANGES

Rent +11

This requested increase is to cover anticipated rent rates of $11 thousand to be charged in FY 1995.

Other Services

- Research and Development + 3,459

A detailed justification for the contract research program request is included in the "GOE Contract Programs" section of this budget justification.

Other Programs +177

This funding is requested cover costs associated with the relocation of the Howard Academy to the Washington D.C. area and will cover one-time costs for (4) staff relocation, office construction, and computer installation and setup.

The following sections provide a narrative summary of recent accomplishments and new initiatives of the Motor Carrier Program. Following these sections is a summary of the Motor Carrier ADP program.

MAJOR ACCOMPLISHMENTS

The (OMC) continues to demonstrate accomplishments through innovative program development and implementation. Many accomplishments have resulted from on-going implementation of the ISTEA while others are self-initiated. Key indicators of highway safety trends show steady improvement. The number of fatal accidents for medium and heavy trucks continued to decline as it has over the past 10 years. The fatal accident rate for combination vehicles has steadily declined since 1981 and is now at 2.9 per 100 million miles of travel. Our major accomplishments are outlined below:

- Over 1.6 million roadside inspections on commercial motor vehicles and drivers were conducted by MCSAP participating State personnel.
- Approximately 20,000 carrier reviews were conducted by State and Federal officials to determine compliance with the Federal Motor Carrier Safety Regulations.
- Nearly 85 percent of previously rated motor carriers improved or maintained their satisfactory ratings.
- The FHWA/OMC settled 2,172 enforcement cases totalling $9.9 million. This is an average of $4,600 per case.
- There were 88 seizures of drugs with a street value of $400 million confiscated through the Drug Interdiction Assistance Program (DIAP). This is a 4 percent increase from 1992.

INTELLIGENT VEHICLE-HIGHWAY SYSTEM (IVHS)/COMMERCIAL VEHICLE OPERATIONS (CVO) - The OMC has worked closely with IVHS America, the Commercial Vehicle Alliance, and other interests, to develop a Commercial Vehicle Operation (CVO) plan as part of the Department's overall IVHS strategy. Under the plan, six commercial vehicle "user services" will be developed:

- electronic clearance of commercial vehicles;
- automated roadside safety inspections;
- commercial vehicle administrative processes;

- on-board safety monitoring;
- commercial fleet management; and
- HAZMAT incident notification.

DRUG AND ALCOHOL RANDOM ROADSIDE PILOT PROJECT - The OMC completed a study of the feasibility of conducting random roadside drug and alcohol tests. Utah, Nebraska, Minnesota, and New Jersey participated in the pilot project. The final results of the pilot project included 31,000 drug tests, 65,000 alcohol tests. A final report is due to Congress in April, 1994.

MEDICAL WAIVERS - The OMC issued temporary waivers from the vision and diabetes requirements of the Federal Motor Carrier Safety Regulations to certain CMV drivers who meet specific conditions and agree to comply with other requirements.

ZERO-BASE REGULATORY REVIEW - The OMC completed Phase I of the zero-base regulatory review. Eleven public forums were conducted to obtain information and views from interested parties on how to establish a comprehensive, unified set of performance-based safety regulations. Phase II will consist of the development of a new regulatory model.

NATIONAL INSPECTORS COMPETITION-CHALLENGE '93 - The OMC completed its first national inspector's competition conducted with Nevada, representatives from 43 States, 9 Canadian Provinces, and Mexico. Challenge '93 emphasized the role of the commercial vehicle inspector, emphasized inspection quality and promoted uniformity in the North American Uniform Driver-Vehicle Inspection process.

IMPLEMENTING NEW TECHNOLOGIES - The following new technologies have been set in motion:

- The OMC installed a Geographic Information System (GIS) in each Regional Office. Using the GIS, Region 3 is more efficiently and equitably allocating resources across State boundaries. In response to the Vice President's National Performance Review, the OMC is developing a resource allocation model to be integrated into the GIS.
- The OMC awarded $1 million in MCSAP research and development grants aimed at improving the roadside inspection program and testing and automatically evaluating commercial vehicle braking systems by using a variety of technologies.

- The OMC established an Ad Hoc planning group of our major customers to determine user needs and implement a strategic plan to improve Motor Carrier Information Services. Current information systems will be analyzed to develop an overall conceptual design for future information services in light of increasingly complex data demands.

- Five States continued development of a Commercial Vehicle information System (CVIS) to tie safety fitness to commercial motor vehicle registration. The participating States are Iowa (lead State), Colorado, Oregon, Minnesota, and Indiana.

NEW PROGRAM INITIATIVES

Some of the high priority areas supported by this budget include, development of the commercial vehicle operation component of the Intelligent Vehicle Highway System (IVHS), implementation of the North American Free Trade Agreement (NAFTA), developing a medical waiver program for insulin-using drivers, integrating the Commercial Driver's License (CDL) issuance process and the medical qualification standards, expansion of a national commercial vehicle public awareness and education safety campaign, and developing a systematic process for reducing the number and severity of traffic crashes.

- **INTELLIGENT VEHICLE-HIGHWAY SYSTEM (IVHS)/COMMERCIAL VEHICLE OPERATIONS (CVO)** - As a key component in the Department's IVHS program, the CVO portion will develop and apply technology to improve highway safety and productivity for both States and the motor carrier industry. The OMC will provide the framework needed to implement a seamless borders concept. The OMC plans to integrate domestic and international CVO data bases.

  A primary objective of the CVO program is to develop and demonstrate, by 1997, a national information network for commercial vehicles. This network will permit safe and legal vehicles to be electronically cleared at mainline speeds. Another CVO objective is to automate MCSAP roadside inspection sites. This will enable enforcement personnel to directly access information for screening, targeting and inspecting vehicles and drivers. A CVO management plan is under development.

- **NAFTA: HARMONIZATION OF U.S. AND MEXICAN STANDARDS** - The NAFTA establishes a timetable for removing barriers between NAFTA countries and achieving compatible technical and safety standards. To promote more effective action in harmonization, seven working subgroups have been established. The OMC actively participates in 6 of the 7 subgroups as follows: (1) Tourism by Motor Carrier and Rail; (2) Cargo by Motor Carrier and Rail; (3) CDL Reciprocity; (4) Standards and Specifications for Vehicles; (5) Emmissions, Size and Weight; and (6) Hazardous materials

- **MEDICAL WAIVERS** -The OMC is reviewing waivers for hearing and epilepsy similar to the current waiver program for vision and diabetes.

- **PROTOTYPE STATE MEDICAL REVIEW PROGRAM** - The FHWA is exploring ways to better integrate the CDL issuance process and the driver medical qualification procedures. The FHWA has contracted with the Association for the Advancement of Automotive Medicine to develop, manage, and evaluate a set of pilot state medical review programs. Six pilot states are testing different programs to verify drivers physical fitness within the CDL process.

- **PUBLIC OUTREACH PROGRAM** -This 3-part program consists of (1) a "Sharing the Road" compaign, (2) a long-range public outreach program, and (3) internal programs.

  Sharing the Road - The State of Maryland has been awarded a grant to develop a public service campaign that will include TV, radio, print and other creative public outreach strategies to educate automobile drivers on sharing the road with a commercial motor vehicle drivers. Practices such as safe vs. unsafe passing, blind spots, following too closely, etc. will be emphasized.

  Long Range Program - The goal of this effort is to present to the public, other agencies, interest groups, and Congress messages focusing on motor carrier safety activities. Some will be independent of the Sharing the Road program and others will be interrelated.

  Internal Programs - Proposals include revitalizing the "Motor Carrier Update"; preparing an OMC history motor carrier activities; creating employee recognition programs; and developing a catalog for public distribution listing all videos, print materials, etc.

- **SAFETY MANAGEMENT SYSTEMS (SMS)** - The OMC will assist states in developing and implementing a comprehensive safety management system as mandated by the ISTEA. An effective SMS is a systematic process for reducing the number and severity of traffic crashes by ensuring that all opportunities to improve highway safety are considered and implemented. The SMS is a cornerstone for identifying safety improvements at the state level.

- **INTRASTATE INCOMPATIBILITY UNDER THE MOTOR CARRIER SAFETY ASSISTANCE PROGRAM (MCSAP)** - Fourteen States/Territories currently participating in MCSAP have incompatible regulations for intrastate commerce and could lose funding if their regulations are not compatible by October 1994. The OMC is currently reviewing the variances for all the States to verify compatibility. They are evaluating the MCSAP eligible requirements in the regulations and exploring options on maintaining policy goals of compatible intrastate regulations without dropping States for MCSAP.

- **TOTAL QUALITY IMPROVEMENT PROGRAM** - As part of FHWA's effort to implement its Strategic Plan, the OMC has embarked on a new initiative to improve training to its employees on total quality management. The OMC has contracted with the 3M corporation for assistance in uniformly implementing improved quality management techniques, practices, and philosophies.

- **SAFETY FITNESS RATING METHODOLOGY** - OMC's safety fitness rating metholodogy is a system which uses data from safety reviews and compliance reviews (CR) along with the safety fitness procedures to assign a safety fitness rating. OMC is continuing to evaluate and modify the methodology to make it more performance oriented and establish a rating system most appropriate for the needs of its users.

- **PEN-BASED COMPUTER RESEARCH** - The OMC is involved in several research and development projects to devise a strategy and software to utilize computer technology to improve roadside driver and vehicle inspections. Two operational software packages using handheld pen-computers have been developed. We are soliciting states to participate in a broad multi-year program to apply new computer and communications technology to roadside ispections.

MOTOR CARRIER PROGRAM

SUMMARY OF ADP REQUIREMENTS

(Dollars in thousands)

Object Class	FY 1994	CHANGE	FY 1995
2500-Other Services	$3,994.0	+200.0	$4,729.7
ADP Services	3,116.0	+200.0	3,316.0
Systems Support	110.0	0	110.0
Systems Development	533.0	0	533.0
Data Entry	235.0	0	235.0
2600-Supplies	$135.3	0	$135.3
3100-Equipment	970.7	0	$970.7
Total ADP Resources	$5,100	+200.0	$5,300

GENERAL STATEMENT

The information systems of the OMC are recognized throughout the organization as extremely **successful** in providing crucial, daily support to motor carrier safety programs. Federal and Motor Carrier Safety Assistance Program (MCSAP) State usage of the Motor Carrier Management Information System (MCMIS), SAFETYNET and the laptop systems increases continuously because these "tools" have become an integral part of how the job of motor carrier safety enforcement is performed today.

MCMIS and SAFETYNET maintain an electronic motor carrier safety history, systematically target "at risk" carriers and provide all of this information electronically to Federal and State field managers and investigators. This creates efficient, focused use of field resources with high quality and uniformity, and industry awareness that a carrier can no longer hide poor safety performance.

PROGRAM ENHANCEMENTS

ADP Services +200

Over half of the total ADP budget is for the routine, daily operational costs of running and accessing MCMIS on the Transportation Computer Center mainframe, herein referred to as "ADP Services". With more State and Federal operations requiring electronic access, as well as more management reliance on reports from these systems, the daily operating costs of this system have been increasing by about 15 to 20 percent annually in recent years.

In addition to increased daily access for field operations, Federal and State managers increasingly rely on the "quality control" reports produced from these data in the daily management and supervision of their programs. The production of analytical and management reports to support Federal and State program management and evaluation activities is very costly in terms of computer time and is one of the largest and fastest growing items in the MCMIS ADP budget. The very beneficial and **successful** quality management guidance produced by MCMIS is also a major reason for the increase in ADP costs.

Continued growth into FY 1995 is anticipated as States increase their reporting of National Governors' Association accidents under MCSAP, as we bring increasing volumes of enforcement case records into MCMIS and as MCMIS data is increasingly used in the targeting of carriers and the safety fitness rating process. Several Canadian Provinces have begun accessing the MCMIS and, by FY 1995, we expect more Canadian Provinces to be full users as well as, possibly, some Mexican States. By FY 1995, we also anticipate that MCMIS will be serving the needs of Commercial Vehicle Information System (CVIS) pilot States for carrier safety fitness information.

Systems Development

The success of new program initiatives increasingly depends on rapid modification of our information systems and on quick, reliable Federal and State field access. The success of new concepts in motor carrier safety and productivity, most notably the CVIS and Intelligent Vehicle Highway System-Commercial Vehicle Operations (IVHS-CVO), will depend on national electronic access to information available only from the MCMIS and SAFETYNET systems.

To accommodate new directives resulting from legislation, regulations and motor carrier safety program policy changes, frequent changes to the MCMIS and SAFETYNET software systems are necessary. For example, new program emphasis on hazardous materials shipper enforcement and high pressure cargo tank facility inspections will require major changes in MCMIS, SAFETYNET and laptop systems. New regulations governing drug and alcohol testing and the inclusion of this as a part of safety and compliance reviews will cause all these systems to change also.

Timely and responsive program support requires a staff of contractor systems analysts and programmers to design and implement the required changes within the deadlines mandated by the program, Congress or others. The accelerating pace of these safety program regulatory and policy changes indicates ongoing growth in this area.

Equipment

The ADP equipment budget has been decreasing steadily in recent years since major new systems, including laptops and field office microcomputers, are not yet approaching the end of their life cycle. With the FY 1995 budget, much of this equipment will be over 5 years old, and we anticipate beginning a multi-year phased replacement of these systems, beginning with the oldest, most functionally obsolete, but also including units which fail and cannot be economically repaired. New specifications will allow compatibility with older units while still taking advantage of the vastly improved performance and lower cost of newer technology.

By FY 1995, we anticipate that our ongoing MCMIS "downsizing" study will result in designs to move an increasing number of MCMIS functions to microcomputer systems, requiring the procurement of a microcomputer database server system, software and communications equipment to permit remote electronic access. These one-time costs will significantly reduce post-1995 increases in MCMIS mainframe operating costs.

CONCLUSION

Continued expansion of motor carrier safety and productivity programs will depend vitally on increased funding of the information systems that directly support these programs. Efficiencies have been and will continue to be realized but increases are nonetheless required. Shortfalls in the ADP budget will cause delays in the implementation of these new programs and restricted access by Federal and State investigators to needed information.

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

GENERAL PROVISIONS

The following provisions related to programs/activities of the Federal Highway Administration are proposed for deletion:

Sec. 327 - Provides that funds previously appropriated to replace a bridge over the 27th Street Causeway in Fort Lauderdale, Florida be used either for a replacement bridge or tunnel.

Sec. 331 - Prohibits the use of funds to design, construct, erect, modify or otherwise place any highway sign in any State using the metric system.

The following provisions related to programs/activities of the Federal Highway Administration are proposed for inclusion with changes as noted:

SEC. 310. (a) For fiscal year [1994] *1995* the Secretary of Transportation shall distribute the obligation limitation for Federal-aid highways by allocation in the ratio which sums authorized to be appropriated for Federal-aid highways that are apportioned *(except that amounts available under 23 U.S.C. 157 shall be weighted at 67 percent and amounts available under sections 1103 through 1108 of P.L. 102-240 shall be weighted at 26 percent)* or allocated to each State for such fiscal year bear to the total of the sums authorized to be appropriated for Federal-aid highways that are apportioned or allocated to all the States for such fiscal year.

(b) During the period October 1 through December 31, [1993] *1994*, no State shall obligate more than 25 per centum of the amount distributed to such State under subsection (a), and the total of all State obligations during such period shall not exceed 15 per centum of the total amount distributed to all States under such subsection.

(c) Notwithstanding subsections (a) and (b), the Secretary shall--

(1) provide all States with authority sufficient to prevent lapses of sums authorized to be appropriated for Federal-aid highways that have been apportioned to a State, [except in those instances in which a State indicates its intention to lapse sums apportioned under section 104(b)(5)(A) of title 23, United States Code];

(2) after August 1, [1994] *1995*, revise a distribution of the funds made available under subsection (a) if a State will not obligate the amount distributed during that fiscal

year and redistribute sufficient amounts to those States able to obligate amounts in addition to those previously distributed during that fiscal year giving priority to those States having large unobligated balances of funds apportioned under sections 103(e)(4), 104, [and] 144, *and 157* of title 23, United States Code, and under sections 1013(c), [and] 1015, *and 1103 through 1108* of Public Law 102-240; and

(3) not distribute amounts authorized for administrative expenses *and funded from the administrative takedown authorized by section 104(a) of title 23, U.S.C.*, the Federal lands highway program, the intelligent vehicle highway systems program, and amounts made available under sections 1040, 1047, 1064, 6005, [6001] 6006, 6023, and 6024 of Public Law 102-240, and not more than [$1,050,000] *$1,699,000* for section 5002 of Public Law 102-240[, and $458,629 for the National Commission on Intermodal Transportation authorized by section 5005 of Public Law 102-240]. Amounts for section 5002 [and section 5005] of Public Law 102-240 shall be deemed necessary for administration under section 104(a) of title 23, United States Code; Provided, That notwithstanding any other provision of law, amounts made available under section 6005 of Public Law 102-240 shall be subject to the obligation limitation for Federal-aid highways under the head "Federal-Aid Highways" in this Act; and

(4) notwithstanding subsection (a), the Secretary shall withhold from initial distribution *$180,000,000 for subsection (e) and* the fiscal year [1994] *1995* Federal-aid highways obligation limitation set aside for Interstate Construction Discretionary projects: Provided, That the Secretary shall distribute only after August 1, [1994] *1995,* such obligation limitation withheld in accordance with this section to those States receiving *subsection (e) and* Interstate Discretionary allocations.

(d) [During the period October 1 through December 31, 1993, the aggregate amount of] *Notwithstanding any other provision of law, the* obligations under section 157 of title 23, United States Code, [for projects covered under] section 147 of the Surface Transportation Assistance Act of 1978, section 9 of the Federal-Aid Highway Act of 1981, sections 131(b), 131(j), and 404 of Public Law 97-424, sections 1061, 1103 through [1109] *1108*, 4008, and 6023(b)(8) and 6023(b)(10) of Public Law 102-240, and for projects authorized by Public Law 99-500 and Public Law 100-17, shall *be subject to the obligation limitation in fiscal year 1995* [not exceed $302,551,350].

(e) During the period August 2 through September 30, [1994] *1995*, the aggregate amount which may be obligated by all States pursuant to paragraph [(d)] *(c)* shall not exceed *the lesser of $180,000,000 or* 2.5 percent of the aggregate amount of funds apportioned or allocated to all States--

(1) under sections 104 and 144 of title 23, United States Code, and 1013(c) and 1015 of Public Law 102-240, and

(2) for highway assistance projects under section 103(e)(4) of title 23, United States Code,

which would not be obligated in fiscal year [1994] *1995* if the total amount of the obligation limitation provided for such fiscal year in this Act were utilized.

(f) [Paragraph] Subsection (e) shall not apply to any State which on or after August 1, [1994] *1995*, has the amount distributed to such State under paragraph (a) for fiscal year [1994] *1995* reduced under paragraph (c)(2).

Sec. [315] 313. None of the funds in this Act shall be used to implement section 404 of title 23, United State Code.

Sec [325] 318. None of the funds made available in this Act may be used to implement, administer, or enforce the provisions of sections 1038(d) of Public Law 102-240.

WEDNESDAY, APRIL 13, 1994.

FEDERAL TRANSIT ADMINISTRATION

WITNESSES

GENERAL ACCOUNTING OFFICE

BARRY T. HILL, ASSOCIATE DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

GARY JONES, ASSISTANT DIRECTOR, SURFACE TRANSPORTATION INFRASTRUCTURE ISSUES

MIRIAM ROSKIN, EVALUATOR, SURFACE TRANSPORTATION INFRASTRUCTURE ISSUES

FEDERAL TRANSIT ADMINISTRATION

GORDON J. LINTON, ADMINISTRATOR

GRACE CRUNICAN, DEPUTY ADMINISTRATOR

ROBERT H. McMANUS, ASSOCIATE ADMINISTRATOR FOR GRANTS MANAGEMENT

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GREGORY B. McBRIDE, DEPUTY CHIEF COUNSEL

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LAWRENCE L. SCHULMAN, ASSOCIATE ADMINISTRATOR FOR TECHNICAL ASSISTANCE AND SAFETY

OPENING REMARKS

Mr. CARR. Good morning. The Committee will come to order. Today we will consider the fiscal year 1995 request for the Federal Transit Administration. Total request of the FTA, including appropriations and obligation limitations is $4.762 billion, representing an increase of $182.6 million above the 1994 enacted level. This is one of the largest increases proposed in the Department's budget.

Our first testimony today will be presented by the General Accounting Office. We will then receive the testimony of officials from the Federal Transit Administration and the Department of Transportation.

We are pleased now to welcome Barry Hill. Welcome, Barry. It is nice to see you. Barry is the Associate Director for Transportation Issues within the Resources, Community, and Economic Development Division. Mr. Hill, if you will summarize your statement, please, and introduce your colleagues, we will place your entire statement in the record.

Mr. HILL. Thank you, Mr. Chairman. I am pleased to be here this morning. This is my first appearance before this subcommittee, and I appreciate the opportunity to have an opportunity to discuss issues associated with our Nation's transit systems with you.

Before I begin, let me introduce my colleagues. On my right is Gary Jones, who is responsible for surface transportation infrastructure issues and on my left, Miriam Roskin, who has been responsible for both our highway and our transit budget work.

As I said, we appreciate the opportunity to testify on issues affecting the Federal investment in transit systems. As this subcommittee well knows, budgetary pressures affect not only the Federal dollars available to transit systems, but State and local support as well. Moreover, unfunded Federal mandates, such as the Americans with Disabilities Act (ADA) and the Clean Air Act amendments, are increasing the costs of maintaining and operating our transit systems.

These factors make it more important than ever that Federal dollars be spent effectively.

My testimony today focuses on three important transit issues: capital investment planning, ADA paratransit compliance, and transit operating assistance.

Let me start by discussing recent changes made to the capital investment planning process.

To address recommendations made in a 1990 report on cost and ridership forecasting, FTA has made a number of changes to the transit planning process. For example, to ensure that forecasts are reasonable, FTA has suggested using peer reviews, performing what-if scenarios to acknowledge the inherent uncertainty of forecasts, and identifying the sensitivity of changes in population growth and other input variables.

More important, in response to ISTEA requirements, the planning process is becoming multi-modal in nature. To accomplish this, FTA, along with the Federal Highway Administration, is requiring local authorities, in solving transportation problems, to consider more than one mode of transportation in their major investment studies.

In addition, state and local governments, metropolitan planning organizations and special interest groups, along with FTA and the Federal Highway Administration, are to act as partners to share responsibility for assessing these projects.

As this new process unfolds, FTA and the Federal Highway Administration will have to work together to redefine the federal role in the planning process, seeking the proper balance between oversight and partnership that each must play.

In addition, FTA's and the Federal Highway Administration's guidance for the new planning process, which is in the early stages of development, should include common measures for comparing different transportation alternatives.

This would provide a common basis for determining a project's ability to meet mobility, environmental quality, safety and other goals.

Finally, FTA and Federal Highways need to identify a way for assessing if the new process helps to make cost-effective investment decisions. We believe that intermediate checks, such as reviewing the changes to operating and capital cost estimates, could be useful as projects move through the various planning and project development phases.

Let me now turn to my second issue, ADA paratransit compliance. Transit agencies face a number of challenges to comply with ADA's requirement to provide paratransit or, in other words, door-to-door, service to persons with disabilities unable to use a fixed route transit system. First, transit agencies found that it was complex to design and carry out an eligibility process to determine who is not capable of using accessible fixed route service. Even more difficult for some agencies was applying the process.

For example, a person in a wheelchair who seems capable and has access to a bus with a wheelchair lift may feel very insecure and dependent on the paratransit service. Transit officials must decide whether that person should be eligible for paratransit service.

The most pressing challenge associated with ADA, according to all 12 transit agencies we visited, was their ability to finance paratransit service to meet ADA requirements. Although FTA has estimated that the yearly cost of paratransit service will be about $700 million, they admit that this estimate is merely an aggregate of educated guesses. The principal difficulty in determining these costs is the uncertainty associated with estimating demand for the service.

Confronted with higher costs, transit officials told us that they may have to take such actions as reducing existing fixed route service, restricting paratransit service to only those who meet ADA requirements, and increasing fares for all service.

Finally, I would like to discuss issues associated with the administration's proposal to reduce transit operating assistance. Difficult budgetary choices seems to be a theme for many of our statements before this subcommittee this year, Mr. Chairman. FTA's budget is no different.

The administration's $4.8 billion proposal for the FTA budget would raise urban formula capital assistance by 44 percent over the 1994 level. But it would also reduce operating assistance by 25 percent. As the Secretary testified before this subcommittee a few weeks ago, DOT's rationale for the FTA budget's emphasis on capital funding is that it provides opportunities for more strategic investment.

Within this school of thought, capital commitments could yield greater long-term returns on investment than would short-term operating subsidies. Transit agencies, however, take a different view. They contend they will not have the resources to cover the reduction in federal operating assistance and will be forced to cut back service or increase fares.

They also note that their need for a consistent level of operating assistance is increased as they deal with unfunded mandates, such as ADA and the Clean Air Act.

FTA officials believe that the increased capital will provide transit agencies with the flexibility to move State and local funds previously slated for capital uses to operations. However, a transit agency's ability to make such transfers varies from agency to agency. Furthermore, state assistance as a share of total operating funds has increased about 8 percent in recent years with local assistance increasing about 4 percent. Transit agencies are concerned that they have been relying on state and local assistance to fill the funding gap and those opportunities may be drying up.

Tough budgetary choices lie ahead in part because of the constraints of Federal outlays. If restoration of operating assistance to the 1994 level is sought, the funds will have to come from elsewhere. If they come from within the FTA budget, cuts in capital programs could amount to $2.4 billion. This is because operating funds are spent more quickly than capital funds.

Alternatively, additional outlays for FTA could come from elsewhere in the DOT budget or from other parts of the federal budget. Any of these choices would, of course, entail difficult trade-offs among competing needs.

That concludes my prepared statement, Mr. Chairman, and we would be happy to respond to any questions.

Mr. CARR. Thank you, Mr. Hill.

[The prepared statement of Barry Hill follows:]

United States General Accounting Office

GAO

Testimony

Before the Subcommittee on Transportation,
Committee on Appropriations,
House of Representatives

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MASS TRANSIT

Issues Related to Fiscal Year 1995 Appropriations

Statement of Barry T. Hill,
Associate Director, Transportation Issues,
Resources, Community, and Economic
Development Division

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to testify on issues affecting the federal government's investment in transit systems based on both our previous and ongoing work. Budgetary pressures affect not only the federal dollars available to transit systems but state and local support as well. Moreover, unfunded federal mandates, such as the Americans With Disabilities Act (ADA) and the Clean Air Act Amendments, are increasing the costs of maintaining and operating our transit systems. These factors make it more imperative than ever that federal dollars be spent in a cost-effective manner.

My testimony today focuses on three issues: (1) what changes have occurred in capital investment planning for transit systems, (2) what challenges face transit agencies as they implement the paratransit requirements of ADA, and (3) what issues surround the administration's proposal to reduce transit operating assistance.

In summary, we have found that:

-- The Federal Transit Administration (FTA), along with the Federal Highway Administration (FHWA), is changing the transit investment planning process by advocating that alternative modes of transportation now be considered. Under this new process, state and local governments, metropolitan planning organizations, special interest groups, FTA, and FHWA are to act as partners and share responsibility for project assessment. Consequently, FTA's role is evolving from direct assessment of proposed new transit capital projects to shared monitoring of transportation projects. While FTA and FHWA are developing guidance for the new planning process, they have yet to identify a mechanism for assessing whether the new process helps to ensure the cost-effective investment of federal dollars.

-- Transit agencies face a number of challenges to comply with ADA's requirement to provide paratransit (door-to-door) service to persons with disabilities unable to use a transit system's fixed route system. These include (1) determining who meets the ADA's criteria for paratransit eligibility, (2) financing the estimated $700 million annual cost of paratransit service, and (3) deciding whether paratransit systems will continue to serve individuals who have been receiving service, such as the elderly, but do not meet ADA's eligibility criteria for such service.

-- A proposed reduction in federal transit operating subsidies presents this Subcommittee with a series of difficult budgetary choices. The President's proposed $4.8 billion fiscal year 1995 FTA budget would reduce federal operating assistance by 25 percent from last year's appropriated level while raising urban formula capital assistance by 44 percent over last year's level. Determining the proper mix of capital and operating assistance is a difficult decision and rests, in part, on basic views of the appropriate federal role in supporting infrastructure development, maintenance, and operations. Additional factors that further complicate this decision include: (1) differing views on the ease with which transit agencies can compensate for lost federal operating subsidies; (2) increases in operating costs that are expected to result from several new federal mandates, such as the ADA; and (3) the fact that funding operating assistance at the fiscal year 1994 level could necessitate transit capital assistance cuts of $2.4 billion or other difficult budgetary tradeoffs.

NEW CAPITAL INVESTMENT PLANNING PROCESS FOCUSED ON MAKING COST-EFFECTIVE DECISIONS

FTA is implementing measures to improve the planning process for major transit investment projects. Changes have been made to address the uncertainties inherent in forecasting cost and ridership by initiating peer reviews of project forecasts and requiring scenarios that provide a range of estimates under various conditions. More important, in response to the requirements of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), the planning process now requires that local authorities consider modes of transportation other than transit in reviewing possible alternatives. Under this new process, FTA's role will be changing from one of direct assessment of new transit investment projects to one of shared monitoring with FHWA, states, local authorities, and private interest groups. FTA and FHWA are currently preparing guidance for this new planning process but has yet to develop a mechanism for assessing its success.

Changes Made To Improve Cost and Ridership Forecasts

To help ensure cost-effective investment decisions, FTA has an investment planning process to assist localities in selecting transit capital projects. Local planners have historically chosen a new project based, in part, on (1) the estimated cost to construct the transit system and related facilities and (2) the anticipated ridership of the proposed system once implemented. These estimates are developed early in the process and accuracy and reliability of the cost and ridership estimates are key in choosing one alternative over another.

In 1990, the Department of Transportation (DOT) commissioned a study to identify ways to improve the transit planning process.[1] The study focused on the cost and ridership forecasts that led local officials to select 10 rail transit projects that have been constructed with federal assistance. The study found that the actual costs of these projects exceeded estimated levels and that ridership fell below estimated levels. The study further examined the reasons for the differences.

The 1990 study recommended several actions to improve cost and ridership estimates, and since then, FTA has taken action to address the recommendations. For example, FTA has recently updated its guidance to include, among other things, information on using peer reviews to ensure that project forecasts are reasonable and on performing "what if" scenarios regarding the uncertainty of forecasts and to identify the sensitivity of demographic and other variables under best and worst conditions. FTA has also contracted with private companies to conduct peer reviews of new transit projects in the areas of ridership, capital and operating/maintenance costs, and financing and has suggested methodologies to examine the effects of various forecasting assumptions.

Multimodal Planning Process Is Still Evolving

In the fall of 1993, FTA and FHWA issued new planning regulations that mandated that the same planning process be used for major highway and transit projects. While state and local officials have begun to assess projects under this process, the federal role, guidance on analysis needed for project alternatives, and a mechanism to monitor the planning process are still evolving.

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[1] Urban Rail Transit Projects: Forecast Versus Actual Ridership and Cost, U.S. Department of Transportation, (Oct. 1990).

The new regulations require that, in solving transportation problems, local authorities consider more than one mode of transportation in their major investment studies. The regulation also requires that FTA, FHWA, state transportation officials, local transit officials, metropolitan planning organization officials, and public interest groups jointly work together to consider all input in support of the investment decision. FTA officials believe that the new regulation affords greater opportunity for public involvement, streamlines the project development process, and allows more consideration of the social, economic, and environmental factors involved in planning major transportation projects.

The new planning process also changes FTA's role in the process. As FTA's role evolves from one of oversight to partnership, FTA officials told us that they are still working with FHWA to define that role. For example, they believe that an adequate quality control process needs to be developed within which project proposals are evaluated to ensure that cost and other project estimates are reasonable. This could include the use of consultants, a peer review panel, and/or scrutiny by the other partners. FTA officials told us that the new process could increase the number of project proposals FTA would be involved in from about 20 currently to several hundred. Consequently, according to agency officials, FTA itself would only review some project proposals in detail. However, the circumstances under which a project would be selected for review has not been determined. As FTA and FHWA work together to define the federal role, a balance between oversight and partnership must be struck.

Furthermore, FTA officials told us that guidance for the new planning process is needed, and that they have just begun to develop such guidance. FTA and FHWA are working with the National Transit Institute to develop a new training course and manual for planners, scheduled to be available in about 6 months. The manual will discuss, among other things, the technical assumptions used in project analysis. FTA believes that this document will serve as the starting point for formal guidance. As the guidance is being developed, we believe it needs to include common measures for comparing different transportation alternatives. In a 1992 report,[2] we recommended that DOT develop such measures to provide a common basis for determining a project's ability to meet mobility, environment quality, safety, cost-effectiveness, and social and economic goals across modes.

While the multimodal ISTEA planning process is still very new, it is not too early to begin thinking about how to measure its success. For example, FTA is uncertain whether the changes that were made to its planning process in response to DOT's 1990 report will actually result in better cost and ridership estimates. FTA indicates that few projects have been completed since the changes and sufficient time has not passed for construction and operation of a project so that actual experience can be measured. Accordingly, on the basis of FTA's rationale, it may be many years before the new planning process can be assessed. We believe that one alternative that FTA could consider would be to do a series of intermediate checks, such as reviewing the changes to operating and capital cost estimates, as projects progress through the different planning and project development phases.

ADA IMPOSES NEW MINIMUM REQUIREMENTS

The Americans with Disabilities Act of 1990 (P.L. 101-336) prohibits discrimination on the basis of disability and applies to, among other things, public transit systems. Under the ADA, transit systems must progressively make their buses and rail systems accessible to persons with disabilities, including wheelchair users, and must provide alternative transportation called paratransit (door-to-door) to those who are unable to use the transit systems' fixed route service.[3] DOT gave transit agencies up to 5 years from January 1992 to comply with the paratransit requirements.

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[2] Transportation Infrastructure: Urban Transportation Planning Can Better Address Modal Trade-offs, (GAO/RCED-92-112, Apr. 2, 1992).

The ADA's impact on individual transit agencies will vary according to the extent to which their fixed-route service was accessible, and the amount of paratransit service they offered, before ADA's enactment. Before ADA, section 504 of the Rehabilitation Act of 1973 gave transit agencies the option of providing either accessible fixed-route service or paratransit service, and many chose to offer the latter. The ADA requires that fixed-route service be accessible and that paratransit service be comparable to fixed-route.

DOT defined comparable service in terms of specific criteria. For example, paratransit service must be available during the same days and hours that fixed-route service is available. While many agencies already offered paratransit service, they often had less capacity than was needed to satisfy all trip requests, and service hours were more restricted than those of the fixed-route systems. Much of the available capacity was consumed by recurring trips for work or medical services, such as dialysis. The remaining trips might be limited to certain purposes, such as visits to the doctor, or provided simply on a first-come, first-served basis.

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[3] We reported on ADA's paratransit requirements in Americans with Disabilities Act: Challenges Faced by Transit Agencies in Complying With Act's Requirements (GAO/RCED-94-58, Mar. 11, 1994).

Transit Agencies Face Challenges In Implementing ADA's Paratransit Requirements

Among the challenges transit agencies face in complying with the ADA's paratransit requirements are (1) determining who meets the ADA's criteria for paratransit eligibility, (2) financing the level of paratransit service required by the ADA, and (3) deciding whether to continue to serve individuals who have been receiving paratransit service but do not meet the ADA's eligibility criteria for such service.

DOT defined eligibility as requiring that comparable paratransit service be offered to those individuals who are functionally incapable of using accessible fixed-route transit service. However, transit agencies have incurred difficulties in establishing an eligibility process, including getting agreement from affected groups on the levels of service to be offered, making arrangements for the professional review of eligibility applications, and developing appeal procedures for those whose eligibility is denied. DOT officials told us in November 1993 that most transit agencies had established processes for determining eligibility but that many had not begun using them.

While the establishment of an eligibility process may be challenging, some officials said that applying it to persons who believe they need paratransit service may be even more difficult. For example, two persons, each living three blocks from a fixed-route stop for an accessible bus and each confined to a wheelchair, may appear objectively to be able to use the fixed-route service. But one may feel capable of traveling to the stop and waiting for the bus, while the other may feel very insecure and dependent on the paratransit service. Transit officials must decide whether to insist that the latter person is capable of using fixed-route service and is thus ineligible for paratransit service.

FTA estimated, when fully implemented, annual paratransit costs could be about $700 million in 1993 dollars. FTA estimated that about 86 percent of these paratransit costs would be for operating expenses (for drivers, dispatchers, fuel, etc.). Based on the transit agencies' plans that provided pre-ADA baseline data, the average paratransit costs are estimated to increase in constant dollars by more than 100 percent from the pre-ADA period through the end of the phase-in period. This estimated increase ranges from about a 129-percent increase in large urban areas to a 63-percent increase in non-urban areas.

FTA characterized its estimate of paratransit costs as an "aggregate of educated guesses." This is because any projection of paratransit costs is based on an assessment of the demand for paratransit services. Demand is difficult to estimate and is subject to considerable uncertainty for several reasons, including: (1) improved service may stimulate demand from persons who have made little use of paratransit service in the past, (2) social service agencies that have been providing transportation to clients may decide to rely more on transit agencies, and (3) although the gradual acquisition of fixed-route buses that are useable by persons with disabilities could moderate the demand for paratransit, transit agencies may have limited success in persuading paratransit riders to switch to fixed-route service.

As discussed in our March 1994 report, securing the financial resources to provide all eligible trips is transit agencies' greatest challenge in meeting the paratransit requirements, according to officials at all 12 of the transit agencies we visited. Confronted with higher costs, transit officials at 9 of the 12 agencies we visited told us that higher paratransit costs and the absence of new funding could force them to reduce existing fixed-route service or delay planned service expansion in order to make additional funding available for paratransit service. In the absence of additional funds from federal, state, and local sources, transit agency officials said that they would also have to consider options such as (1) restricting paratransit service to those persons who meet the ADA criteria, (2) requesting a waiver to delay full compliance, and (3) increasing fares for all service. Restricting paratransit service to those persons eligible under the ADA could affect paratransit access to those persons, such as the elderly and disabled persons who feel dependent on paratransit but are not eligible under the ADA. Nine of the 12 transit agencies we visited will continue to serve persons who do not meet the ADA eligibility criteria. Officials from these agencies told us that expectations for this service had been created, and some said that restricting service to persons meeting the ADA's criteria would engender resistance from current riders and groups representing disabled persons.

PROPOSED REDUCTIONS IN FEDERAL OPERATING ASSISTANCE OCCUR WITHIN COMPLEX BUDGET ENVIRONMENT

The Congress first authorized the use of federal funds to help pay for transit operating expenses in 1974. Since the early 1980s, however, operating assistance has been a consistent target of proposed cuts in administration budgets, although the Congress has regularly elected to appropriate significantly higher levels of operating assistance than proposed. The administration's fiscal year 1994 budget departed from the trend of requesting a reduction of federal operating assistance. The fiscal year 1995 total FTA budget of $4.8 billion is higher than the fiscal year 1994 budget, but also proposes a cut in operating assistance. The $600-million level of operating assistance for urbanized areas, proposed in the fiscal year 1995 budget, is 25 percent below the $802 million in operating assistance that annually has been provided since 1990. The 25-percent reduction is modest, however, compared to operating assistance cuts proposed by past administrations.

Trends in Federal Operating Assistance

Operating assistance pays for such activities as vehicle maintenance and operations, as distinct from major capital investments, such as bus and rail car purchases or construction of rail lines. Federal transit operating assistance is available for urbanized areas through FTA's section 9 program, which is the primary source of federal transit funding distributed by formula.[4] Section 9 supports both capital and operating assistance. Operating assistance is made available through the operating limit, which sets aside a portion of funds that can support either operating or capital expenses. FTA officials note that the majority of the operating limit is used for operating purposes. As discussed below, federal funds provided by the section 9 operating limit accounted for about 5 percent of total operating funding to the nation's urbanized areas in 1991. State assistance accounted for about 20 percent of total funding, local assistance for about 40 percent, and passenger fares accounted for 35 percent of total funding.

As shown in attachment I, in the early 1980s, the section 9 operating limit exceeded $1 billion annually. Since 1988, the operating limit has held steady at slightly over $800 million. Attachment I also shows that the purchasing power of this apparently consistent level of funding has been somewhat eroded by inflation. The proposed $600-million level of operating assistance for fiscal year 1995 is 45 percent below the $1.1 billion fiscal year 1995 operating limit proposed in ISTEA.

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[4] Urbanized areas are those communities with populations of 50,000 or greater, as specified by the Bureau of the Census. A small amount of additional operating assistance is distributed by formula to rural areas through FTA's section 18 program. For fiscal year 1995, the President's budget proposes total section 18 capital and operating assistance of $154 million, which is 19 percent higher than the fiscal year 1994 level.

Effect of Reduction on Transit Operations Is Uncertain

The reduction in operating assistance is proposed within the context of a total transit budget of $4.8 billion. By holding the operating limit to $600 million, the administration is able to propose a higher federal commitment to the capital portion of the section 9 program, which is proposed to increase to $2.05 billion, or 44 percent over the fiscal year 1994 level. Thus, the administration has decided to place top priority on capital funding, which the Secretary of Transportation termed a "more strategic investment" in February 23, 1994, testimony before this Subcommittee. The Administration's continuing commitment to capital investment stems from the economic view that such investments increase productivity and yield long-term returns on investment such as job creation and economic development.

Transit agencies, as represented by the American Public Transit Association, take issue with the proposed reduction in federal operating assistance. The Association contends that agencies will not have the resources to cover such a loss and will have to turn to service cutbacks and fare increases to bridge the gap. To support this argument, the Association surveyed its members on how they would respond to a 25-percent cut in federal operating assistance. Of the 120 respondents, 70 percent said that they would raise fares, and 83 percent said that service cutbacks were a likely outcome. The Association further notes that fare increases and service reductions could trigger a decline in ridership. This decline would exacerbate the fact that transit ridership has declined as a share of total national travel.

FTA officials believe that with increases in federal capital assistance, transit agencies will gain the flexibility to move state and local funds that were previously slated for capital purposes to their operating budgets. The extent to which agencies can make these transfers depends, in part, on how much surplus capital funding is available to move into the operating budget after the state and local match of federal capital funding has been met. It appears that transit agencies' ability to make such transfers will vary and will have a significant bearing on the extent to which transit agencies will have to turn to other sources of revenue to cover their operating costs.

Transit advocates also note that opportunities for transit agencies to obtain additional state and local subsidies may be constrained by the fact that they have regularly looked to higher state and local contributions to meet their operating assistance needs throughout the 1980s. Transit systems' operating budgets have increased over time, which has resulted in the federal share of total transit operating revenues declining from 16.8 percent in 1980 to about 6 percent in 1992, according to the American Public Transit Association.[5] Transit agencies have compensated for the decline in federal share by obtaining operating revenues from other sources, primarily higher state and local subsidy levels. State assistance, as a share of total operating revenues, has increased about 8 percent from 1987 to 1991, with local assistance's share increasing about 6 percent during the same period. In contrast, passenger fares as a share of total operating funding fell about 5 percent.

Transit agencies' reliance on federal assistance varies among urbanized areas of different sizes. In general, larger urban areas tend to rely less on federal aid. In 1991, for example, federal operating assistance comprised about 4 percent of total operating revenues for urban areas with populations over 1 million. In contrast, in 1991, federal operating assistance comprised over 20 percent of total operating revenues for smaller urban areas with populations between 50,000 and 200,000. Averages, however, do not always convey reality. For example, in 1992 federal assistance for the city of Detroit's Department of Transportation comprised 10 percent of total operating funds, which is more than double the average figure of 4 percent that applies to urbanized areas in Detroit's population category.

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[5] The American Public Transit Association's 6-percent figure is slightly higher than the 5-percent share reported by FTA because the Association's figure includes sources of federal transit operating assistance other than the section 9 operating limit.

Unfunded Federal Mandates Impose Additional Operating Expenses

The proposed reduction of federal operating assistance may come at an inopportune time for many transit agencies because a series of federal mandates are presenting them with additional operating expenses. FTA estimates that transit operating expenses associated with the ADA (which we have already discussed), the Clean Air Act Amendments, and federal drug and alcohol testing requirements, could total about $850 million annually when fully implemented. The largest cost is for the ADA, estimated at $653 million by FTA.[6] Operating expenses associated with the Clean Air Act Amendments are estimated by FTA to be $155 million annually, and the costs for drug and alcohol testing are estimated at $42 million annually.

Difficult Budgetary Choices Lie Ahead

If the Congress elects to appropriate an FTA budget consistent with the administration's proposal, increases in formula capital funding over fiscal year 1994 levels will be made available to the nation's transit systems, though operating assistance will be reduced by 25 percent. Alternatively, a decision to fund operating assistance at its 1994 level could present other difficult budgetary decisions. Specifically, looking within the FTA budget for the outlays needed to fund operating assistance at the $800 million level would be complicated by the fact that the tradeoff between operating and capital assistance is not a dollar-for-dollar exchange. This is because operating funds are spent more quickly than capital funds.

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[6] As noted by FTA officials, the estimated $653 million comprises the $600 million in operating expenses to section 9 operators associated with the ADA's paratransit requirements, as well as about $53 million in operating expenses related to the ADA's nonparatransit requirements. Maintenance of wheelchair lifts is one of the main components of this figure.

As a result, adding $200 million to the section 9 operating limit could require about a $2.4 billion cut in appropriations for transit capital programs, assuming that outlays in FTA's budget are held to the same level assumed in the President's budget and that the FTA budget is selected as the source for the additional funding.[7] As noted, the need for such a large cut in capital programs results from the different rates at which capital and operating funds are spent. Budget analysts at the Congressional Budget Office and at the Office of Management and Budget assume that 60 percent of every dollar appropriated for operating assistance is actually spent in that same year. In contrast, analysts assume that just 5 percent of every dollar appropriated for section 9 capital assistance is actually spent in that same year. The reason for capital programs' slow spend-out rate is that major capital projects typically take several years to get started.

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[7] Each year, budget authority and outlays for FTA and other federal agencies are constrained by a statutory budget authority cap and outlay cap defined in the Budget Enforcement Act of 1990, P.L. 101-508, as amended. The caps were designed to control federal spending. While the President's budget proposes certain budget authority and outlay levels for individual agencies, during the appropriations process, the Congress may either accept the mix of levels incorporated in the President's budget or allot a different mix of levels among individual government agencies, as long as the overall governmentwide caps for budget authority and outlays are not exceeded.

The disparity in spend-out rates between capital and operating assistance can cause operating assistance reductions to seem tempting, as $1 cut from operating subsidies can translate into as much as $12 in increased section 9 capital grants for the year of appropriation. However, shifting funding to the capital side yields short-term budgetary benefits, as unpaid obligations will still have to be paid out in future years. In addition, given the likelihood that federal outlays will continue to be constrained in the future, capital commitments made today may translate into a reduction in flexibility for choices in future years. This is because outlays resulting from slow-spending programs will consume a substantial portion of the few remaining opportunities for additional outlays in the future. Making a larger capital commitment today, however, may yield more substantial long-term returns on investment than will short-term operating subsidies.

Both the House and Senate Budget Committees call for fiscal year 1995 DOT outlay levels that could both accommodate an operating limitation at the fiscal year 1994 level within the section 9 program and still permit increases in the section 9 capital program over the 1994 level. While this approach would help eliminate the need for difficult tradeoffs within the FTA budget or the DOT-wide budget, it would necessitate that funding be taken away from other areas of discretionary federal spending. If the Appropriations Committees do not elect to follow the Budget Committees' proposals to raise outlay levels for FTA, the task of setting priorities and weighing the tradeoffs between capital and operating needs and assistance within the FTA budget will present these Committees with difficult choices.

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In summary, Mr. Chairman, ISTEA has brought the transportation community to a new crossroads for capital investment decisionmaking. Cross modal alternatives are now considered for major investments and all levels of government are in partnership with special interest groups and others to consider the alternatives. With this change comes an evolution of the federal role. FTA and FHWA are still formulating how and when they can combine the roles of project overseer and partner to ensure that federal dollars are invested in a cost-effective manner.

In addition, weighing the relative benefits of providing operating versus capital assistance presents a dilemma that must be addressed within a constrained budget environment. Further complicating this issue is the fact that several unfunded federal mandates, such as the ADA, will significantly raise the costs of operating the nation's transit systems in this and future years.

Mr. Chairman, this concludes my testimony. We would be happy to respond to any questions that you and the other members of the Subcommittee might have.

ATTACHMENT I

Authorization, Budget Request, and Appropriation Amounts for Transit Operating Assistance, FY 1980-1995

Dollars in millions

Fiscal year	Authorized operating assistance limitation	Budget request	Appropriation (Nominal dollars)	Appropriation (Real 1993 dollars)
1980[a]	1280.0	1075.0	1105.0	1915.1
1981[a]	1295.0	1200.0	875.0	1378.0
1982[a]	1105.0	1105.0	1035.6	1534.2
1983[a]	865.6	640.0	875.0	1246.4
1984	870.1	275.0	870.1	1187.0
1985	870.6	545.0	871.3	1146.4
1986	867.5	0.0	871.3	1117.1
1987	867.3	111.9	860.7	1069.2
1988	912.6	111.9	804.7	961.4
1989	918.1	160.0	804.7	920.7
1990	923.9	119.5	802.3	879.7
1991	934.0	297.8	802.3	846.3
1992	995.9	297.8	802.3	822.9
1993	1028.5	217.0	802.3	802.3
1994	1055.5	802.3	802.3	785.0
1995	1090.0	600.0	[b]	[b]

Source: GAO analysis of FTA data. Nominal dollars are converted to real dollars using the Gross Domestic Product deflator.

[a] Figures for fiscal years 1980 through 1983 refer to tiers 1, 2, and 3 of the section 5 program. The section 5 program preceded section 9, and funding provided through tiers 1, 2, and 3 of the program was available for operating or capital uses. Figures for fiscal years 1984 and following refer to the section 9 operating limit.

[b] Appropriations for fiscal year 1995 have not yet been made.

RIDERSHIP ESTIMATES

Mr. CARR. You mentioned that the FTA has made changes in its planning process to address recommendations made in 1990 to improve cost and ridership estimates. Were those changes successful?

Mr. HILL. It is really too early to declare them a success right now, Mr. Chairman. Conceptually the changes they have made seem to make sense and it would appear they would tend to improve these estimates over the long haul.

Basically, FTA is encouraging the transit agencies and the state and local governments to use peer reviews to review the reasonableness of the estimates that are being prepared and to also prepare what-if scenarios which basically would acknowledge the uncertainty surrounding the development of these estimates.

In addition, they are also asking that the analysis identify the sensitivity of the estimates to changes in some of the key variables that affect or drive these estimates. I say it is too early to tell because they have just recently instituted this process and there haven't really been enough projects to go through the pipeline yet to declare it a success.

PARATRANSIT COST ESTIMATES

Mr. CARR. Your testimony states that estimated paratransit costs are about $700 million. How certain are you of these costs?

Mr. HILL. Those costs are really not very certain at this point. The costs were put together basically by FTA reviewing transit agencies' plans that were submitted to FTA. Even by FTA's own admission, $700 million represents at best an aggregate of educated guesses.

The reason it is difficult to say with any certainty whether that is the right estimate is that the estimate really hinges on the demand variable, and demand is very difficult at this point to predict because of a number of factors. For one, once these improvements are put in place and the service generally improves, you would expect there would be an increase in demand for paratransit services on the part of the disabled individuals.

In addition, once the service improves, social agencies that currently are providing this type of service to their clients may encourage their clients to utilize the paratransit or mass transit more readily.

As we get closer to the 1997 date and these things are put into place, I think FTA will be in a much better position to estimate the costs of ADA's paratransit requirements, and these numbers will become more firm and the estimates will improve.

PROPOSED OPERATING SUBSIDY REDUCTION

Mr. CARR. Do you have any ideas on how to address the proposal for a 25 percent reduction in Federal operating assistance?

Mr. HILL. It is a very difficult decision and it obviously involves some very tough trade-offs. This is more or less based on a basic policy decision. Congress has to determine what is the proper mix of capital and operating assistance and what is the appropriate federal role in supporting infrastructure development, maintenance, and operations.

A number of factors obviously have to seriously be considered in making the decision in terms of the funding priorities. The ability of the local transit agencies to supplement or move funds from their capital assistance accounts into their operating assistance accounts to make up for the reduction in the federal funds is one of those factors. That ability varies basically from agency to agency depending on whether there is a surplus in those capital accounts or not, and also depending upon how dependent the individual transit agency is on the operating subsidy.

Analysis would show that larger urban areas are less reliant on the federal operating assistance than are the smaller urban areas. I think statistics we have seen show that for larger urban areas, the federal subsidy amount accounts for about 4 percent of their operating revenues compared to 20 percent for smaller urban areas.

So reducing the operating assistance at those levels could have a bigger impact on the smaller urban communities than the larger ones.

There is also the factor of the unfunded mandates that many of the transit agencies are facing, including the ADA requirements, the Clean Air Act requirements, and the drug and alcohol testing requirements. Complying with these mandates will require additional operating funds, and this will also put a stress on transit agencies.

So it is a difficult decision, and unfortunately, I know this subcommittee and the Congress has been making these difficult decisions in many of the programs that are being considered this year.

Mr. CARR. When we look down the list of transit agencies, their dependence on the subsidy varies quite a bit. Has anyone done any studies that try to draw some conclusions about the variances, other than size of the property?

I mean, has it ever been studied against local tax effort, for example? Has it ever been studied against average fares? I mean, are there other correlations just beside the size of the property that you have taken a look at?

Ms. JONES. No, sir. There may be studies out there. I am sure APTA or FTA has looked at that, but I am not aware of any studies.

Mr. CARR. It might be kind of interesting to know, just sort of conceptually, that if a community has what you might call an undue dependency to a portion of their subsidy due to, say, political indecision in the local community, then that would be one thing.

On the other hand, if the dependency is one that is within the zone of what we would say is acceptable and reasonable relative to what all other transit agencies are making every effort are doing, then—and then correlate that with perhaps size.

I am having a little trouble with the notion that somehow big systems and small systems have these different dependencies, but that is where we leave the analysis. I am not sure that that is terribly fair to the smaller systems.

Ms. JONES. I agree with you, Mr. Chairman. There are a lot of other factors that come into play because if you look at the smaller systems maybe from a dollar standpoint, it might be less of a burden on them. It may be more of a burden. It just depends on their specific situation.

The same with the larger urban areas. Some may have a better handle on the clean air situation. Some may not need as much money to comply with ADA. So it is very situational. I think you are correct that other factors need to be come into play in this kind of analysis.

Mr. CARR. Maybe we ought to have you take a look at some of those things, because we keep hearing this thing about large systems, small systems, and that is about the end of our analysis, and I am not sure—I think that is kind of a fuzzy picture to look at.

Maybe there is an analysis or correlations that could be made, so that in future years, we might give some guidance to some agencies and say, look, if your local tax effort for a dedicated source of operating revenue drops below a certain ratio to something else, then for your agency, your subsidy is not going to be as much, but we are not going to whack everybody else just because a few have this little problem bellying up to the bar.

On the other hand, there may be certain operating contingencies in some areas which account for a much higher fuel usage or some other problem, which is really perhaps not part of any fault pattern. That is something that is just a local issue that they have to deal with, even perhaps I know that in some areas of the country where you have tougher climate conditions or tougher geography, maybe you have a lot of steep hills and you use more fuel or you have to have drive trains that are more durable but require more maintenance or something like that.

There are a million variations between these agencies and we ought to be able to give policy-makers a little clearer picture of where to divide the line between that operating subsidy that we feel is somewhat suspect and that operating subsidy which is purely reasonable, and I sense that there are some policy-makers who are looking ahead, knowing that the ability of the Congress every year just to say no to administration requests to eliminate operating subsidy are really nevertheless looking for a better way to make a decision about what level of subsidy for what properties and what circumstances is truly appropriate.

This is not a formal request. I don't want to put that on you in a hearing. I would like maybe for to you come in and we could discuss it.

Mr. HILL. Sure.

Mr. CARR. Because in the out-years, this pressure on operating subsidy is just simply not going to go away. We have had administrations of different parties. There is just a certain embedded thing here that says the federal government ought to be more about capital than about operating.

Mr. HILL. I think you raise a good point, Mr. Chairman, and we will certainly consider that. And if I might add, I think perhaps some of the reliance on the operating assistance might be affected by the ISTEA provision that is now requiring consideration of alternative modes of transportation in solving some of these transportation concerns. Perhaps these efforts will result in system planning that will make cost-effective decisions and also minimize operating expenses by creating systems that will require less operating funds to operate and still meet their needs.

Mr. CARR. Well, that is a longer discussion. I would like to see how that plays out. I know that the quick and easy assumption is, well, if we just get ourselves a train, then we will have lower operating. It doesn't work out quite that well and you end up having more capital and more subsidy required. But if the goal of the community leader is balanced not only for transportation services but is also balanced for getting as many federal dollars to my community as I possibly can to create as many jobs and make me look as good as possible, I think one of the problems we end up with here is are we trying to supply transportation at its most cost-effective minimum, or do we have other agendas, like economic development, political prestige, all these other things get nailed into these decisions about what kind of a system do we use and how big is it and all these other things? And I think you could help. I am not trying to put those other strategies down as unworthy, but I would suggest that if we could figure out a way as a federal government to say, we are going to support you to a certain level, which is transportation services, if you have strategies that go beyond that, then you figure out a way to pay for them, then it seems to me we would have the tools to make some decisions. I am not really sure we have the tools today.

One of the other things I wanted to ask you about was the connection between operating subsidies and unfunded mandates. Have you been able to break out at all the mandates which are capital related or those mandates which are operationally related? Drug testing clearly is operationally related, especially modified vehicles may well be a capital thing. Have you thought about that at all?

Ms. JONES. Another example would be paratransit in terms of the ADA. Almost all those costs would be considered operating. I think our estimate was about $700 million in total paratransit annually. About $600 million of that total cost would be considered operating expenses for drivers, schedulers, things like that, and fuel for the vans and the buses. So that is another example of one that would hit over on the operations side.

Mr. CARR. Have you taken a look at these—you articulated three major ones, drugs, clean air, and ADA. Drugs I would assume would be pretty much 100 percent operating. Clean air, how much of that is operating versus capital?

Ms. ROSKIN. We don't have the exact breakdown on that. A substantial component of the costs associated with the Clean Air Act amendments are for fuel and typically that would count as an operations kind of expense.

Maybe what we can do is get together with FTA and see if we can get you an exact breakdown on those numbers.

Mr. CARR. We will ask the FTA to update their table on page 952 of last year's hearing. Last year, the table that was supplied for us was that ADA cost summary was about one-third capital costs and two-thirds operating expenses.

Ms. JONES. That is about right.

Mr. CARR. So in other words, this isn't just to try to win some argument someplace. It is just by way of trying to say that the unfunded mandate argument regarding operating subsidy is real. It may not be—but it is not a one-to-one kind of situation.

Ms. JONES. Correct.

Mr. HILL. That is right.

Mr. CARR. Mr. Foglietta.

Mr. FOGLIETTA. I don't have anything.

Mr. CARR. Mr. Wolf.

UNFUNDED FEDERAL MANDATES

Mr. WOLF. Thank you, Mr. Chairman. I am sorry I wasn't here when you testified. I quickly skimmed through your testimony. I have one or two questions.

But are you saying basically that we have actually fallen behind with the unfunded mandates? Would you say that dollar for dollar we are actually going to be spending less then for mass transit with all the ADA, alcohol testing, everything else?

Mr. HILL. I guess what we are saying is that the unfunded mandates will put additional financial pressures on the transit agencies to keep pace with what they have been spending in the past, particularly if federal operating assistance is reduced. When you compound that with the fact that these unfunded mandates are putting additional pressures on them, yes, it will be a bit of a strain on them.

Mr. WOLF. But more than a strain. Will they actually be falling behind, I mean if you go dollar for dollar? Have you looked at that with regard to the fact that here is what we spent in 1950, 1960, 1970, 1980, and 1990 and recently. Then you add the unfunded mandates.

Clearly the Congress wasn't having unfunded mandates in 1950. Congress was only here for four or five months and went home. Now, with the unfunded mandates in, say the last 10 years, is there actually going to be a drop in what they are actually going to have or an increase? I mean, does the growing population, more need for mass transit, all these things, but it seems—and I just skimmed it very quickly, so I could be wrong.

But when you add the unfunded mandates in that, maybe you are actually going to have less money, is that fair, or about the same, no growth with regard to meeting the needs?

Ms. JONES. We haven't done the analysis you are talking about, Mr. Wolf. It seems reasonable on its face. We would be happy to take a look at that and provide something for the record for you.

Mr. WOLF. That would be helpful because we may be just barely treading water——

Ms. JONES. Okay.

Mr. WOLF [continuing]. With the growth of the population, particularly in the urban areas that are spreading out, areas like mine that now—that I used to represent, no longer do, but the suburbs are moving out to the countryside, and the countryside is moving out and with the growth and the need, if you put all these unfunded mandates in, you may not be making any progress.

[The information follows:]

The following analysis compares authorized levels of federal transit assistance with the estimated costs to transit operators of the Americans with Disabilities Act, the Clean Air Act Amendments, and drug and alcohol testing requirements.

The cost estimates are associated with full implementation of each of the three mandates; costs of these magnitudes will likely not be incurred until fiscal year 1997 or later. Thus, to support a meaningful comparison between the costs of these mandates and levels of federal transit assistance, we have used federal transit assistance levels authorized under the Intermodal Surface Transportation Efficiency Act (ISTEA) for fiscal year 1997. Actual federal assistance appropriated for fiscal year 1997 could be substantially lower than authorized levels, as has traditionally been the case.

In brief, our analysis shows that capital costs associated with full implementation of the three mandates amounts to small portion (about 6 percent) of total authorized federal capital assistance for mass transit for fiscal year 1997. On the operating side, however, our analysis shows that operating costs associated with full implementation of the three mandates amounts to a sizeable portion (about 75 percent) of total authorized federal operating assistance for mass transit for fiscal year 1997.

Table 1 details the cost estimates and percentage calculations.

Table 1: Estimated costs of three unfunded mandates compared with authorized federal transit assistance

Dollars in millions

	CAPITAL	OPERATING
Americans with Disabilities Act	279	653
Clean Air Act Amendments	110	155
Drug and alcohol testing	0	42
Total costs	389	850
Total authorized federal assistance, fiscal year 1997	5,925	1,134
Total costs as percent of federal assistance	7 percent	75 percent

Notes: Cost estimates are associated with full implementation of the cited mandates. The federal capital assistance figure is associated with authorized capital funding under ISTEA for sections 3, 9, and 18 of the FTA program and for the Washington Metropolitan Area Transit Authority. The federal operating assistance figure is associated with the authorized operating limit under ISTEA for section 9 of the FTA program.

Source: GAO analysis of FTA and American Public Transit Association data.

TRANSIT SYSTEMS OPERATING COSTS

Mr. WOLF. What about Metro? What do you think? I look at Metro and I have been a supporter of Metro and this Committee has. I think Metro is about second in operating costs because of wage rates and different things like that is that right? Second, do you know where Metro is in that?

Ms. ROSKIN. I do not know. It seems to me though that that is the kind of thing that we would want to be looking at in following up on the Chairman's interest in our reviewing individual transit agencies' fiscal effort and fiscal capacity variables. Typically, as we noted before, we were looking at the transit agencies by category rather than individually, but I think that would make an interesting analysis that we could easily fold into the work that we were talking about with the Chairman.

Mr. WOLF. I think that would be helpful. Do you have any feeling about the impact of binding arbitration, for example, at Metro. The Metro systems are doing better. I spoke to Mr. Downey, Deputy Secretary, the other day, and he had been up in New York, I think he said the fare for the New York system was $1.25 or $1.50 anywhere in the system. They have about 300 and some miles of rail.

Here in the Washington area, when we finish, there will be 103 miles and the costs right now, if a single parent drives to the Vienna Metro stop, parks the car, $2.90 in, $2.90 out, you are beginning to reach a breakpoint where they say I would rather stay in my car. Have you looked at any of those things, binding arbitration, any of those issues and the ones that are doing better versus the ones that are not doing as well?

Mr. HILL. I am not aware of any work we have done in that area.

Ms. JONES. We have looked at operating costs in general, but that was back in 1981, Mr. Wolf. We really haven't looked at that specific issue in more recent years and we haven't done any specific work on Metro.

Mr. HILL. We have not really done any specific work on any specific transit system by itself. We have been looking at the broader picture.

Mr. WOLF. Could I ask you to look at Metro? I think basically it is a well-run system and I have been a strong supporter of Metro. Having said that, I want to make sure that we can continue to move people.

If a single parent in New York City pays $1.50 to go for 302 miles and a single parent in Oakton pays $2.90 plus parking there, I want to look and see what is wrong, and I am thinking of instituting legislation which would reopen the Metro compact. Fairfax County and other places are beginning to go with private bus systems, and if they go, if one jurisdiction can go with a private bus system, that places a burden on the others so, therefore, they begin to go with private, and pretty soon I think unless somebody does something or looks at it, we may see the Metro system in the Washington metropolitan area without buses. So if you could look at that.

Or do you have any thoughts about that?

Ms. JONES. We would be happy to talk with you about that issue and what we could do for you in that regard.

Mr. WOLF. Okay. Overall, how do you think FTA does?

Ms. JONES. In our testimony, we talk about the changes to the capital side of the house in terms of the planning process. In looking at some things that FTA has put in that process, we think that is going to help improve the cost and ridership estimates that are the baseline for the transit projects.

So from that perspective, we think they have done some good work.

Mr. WOLF. Are there any other perspectives that you feel—I am not trying to get you to say anything negative. There are a lot of good things going on. Do you see some problems?

It wouldn't be attributed to the people that are in the room because they are so new, but do you see things that ought to be changed? Have you looked at it, that you go home and say, if I were the head of FTA, I would do this, I would do this, having looked at other systems around the country, seeing how they are related to urban versus rural?

Ms. JONES. The only other body of work that the GAO has done in looking at FTA is a review of their grant management process, which we did over the last few years. We had a series of recommendations that we had sent over to FTA to change that process somewhat.

Mr. WOLF. Did they change it?

Ms. JONES. Yes, they have accepted the majority of our recommendations. They are working through that right now to put a number of things in place to improve their grant management process.

We saw maybe earlier last year that FTA's efforts had stalled a little bit, but we think that they are back on track, and we are continuing to monitor their efforts along with the Inspector General's office.

Mr. WOLF. Well, I have no further questions. I thank you for your testimony and thank you, Mr. Chairman. I want to thank the Chairman too. I think it is really important that the Chairman—I don't know if this is done on other committees, but he brings up the GAO before time. It is very, very helpful. So thank you and thank the Chairman.

Mr. CARR. Thank you, Mr. Wolf.

Mr. Price.

CAPITAL INVESTMENT PLANNING

Mr. PRICE. Thank you. I would like to ask you to evaluate in a bit more detail the changes under way in capital investment planning. Your statement mainly relies on your conversations and investigations at FTA on the work under way.

It is still evolving. Two interesting initiatives are multi-modal planning and the rather complex process being developed to involve authorities at all levels to require that the FTA, the FHWA, the state transportation officials, the local officials, the metropolitan planning organizations, and the public interest groups all work together.

It is more difficult to implement. Are we moving on a reasonable timetable toward reaching these objectives and improving our cost and ridership forecasts, where are we in the planning side of the equation?

Mr. HILL. Mr. Price, I would say we are at the starting point. I think FTA is still creating the process by which this will all work, and you characterize very well the major changes here in terms of improvements to the cost and ridership estimates, as well as considering alternative modes in making transit investment decisions.

Conceptually, I think this all makes a lot of sense, particularly considering the alternative modes, having FTA and the Federal Highway Administration sitting down with State and local and the metropolitan planning organizations and special interest groups in partnership to make some of these very difficult decisions, and conceptually you would think that just by the nature of that process, with all of them working together, it would result in more cost-effective transit investment decisions in the long term.

But there are still a lot of details to be worked out. Not enough of the process has unfolded at this point to really say whether it will work or how it can work, and I think FTA is moving in that direction to firm up some of those things.

It would certainly be an interesting thing to ask the FTA witnesses when they come up to the table to see where they are in that right now.

Mr. PRICE. I am interested in your assessment because I suppose part of the need here is for greater technical proficiency and the peer review requirements, for example, are aimed at that, and—but there is also this need to broaden the planning process so that various stakeholders are heard from and more diverse input is acquired.

Of course, those two might not always point in the same direction. Certainly the—certainly the technical needs, I wonder what your assessment is there. You say there has been a pattern in the past of cost exceeding estimated levels, ridership being—potential ridership being exaggerated. You say that we have moved to correct that with peer review, with increasing our technical capacity. Let's just concentrate on that for a minute. Where are we on that?

Mr. HILL. You would think that expanding the base of agencies and groups involved in looking at these projects, and the estimates that go into them and the factors that are considered before they are approved, would contribute to a closer examination of the project proposals. More questions would be raised and answers provided to make sure that the projects that do emerge as the most cost effective have been fully scrutinized.

Mr. PRICE. You might expect that and an increasingly confused picture where agencies and the different levels of government are bringing their own particular priorities to bear on this process and the net result is not necessarily a gain in analytical capacity, forecasting ability.

Setting aside that political complexity, I want to focus on the first part of your statement about the problem with the technical quality of some of these forecasts and the recommendations we institute, peer reviews we contract with private companies where necessary to conduct these reviews, to oversee these studies. Are we doing what we ought to be in that area to get the hard data we need to set priorities intelligently?

Mr. HILL. Certainly moving to a peer review mechanism is one action that we support. We also think that there are opportunities perhaps for putting intermediate checks into play in terms of closely watching changes to key variables early on in the process. Monitoring them once inital projections are made could help identify if there are fluctuations in certain key variables, like population trends, employment trends, and labor costs in that area.

So in other words, the idea is to not come up with an estimate at a given point in time and put it on the table and walk away from it, but to continually look at that estimate and consider the variables that go into making that estimate and track those variables to be sensitive to changes that are occurring in them so that we can refine these estimates.

If not, we can at least learn from that experience and modify the process or consider additional things that need to be considered for future projects.

Mr. PRICE. And those that improved analytical capacity would not bypass or foreclose consultation, the need to widen the input going in to these decisions, but would provide an information base all would have to respect.

Mr. HILL. Well, I think FTA has to be involved in this process from the inside as well as go outside and seek additional viewpoints through the peer review process and other avenues.

I think the more people, the more agencies and groups that look at these estimates, the more scrutiny they get, the better these estimates will become over time.

Mr. PRICE. Thank you.

Mr. CARR. Mr. Coleman.

Mr. COLEMAN. I do not have any questions, Mr. Chairman.

Mr. CARR. All right.

Mr. Hill and colleagues, thank you very much for being here. I appreciate your time and attention to helping us sort out some of the tougher analytical problems facing our investment in transit programs. We look forward to working with you some more in the future.

FTA OPENING REMARKS

We now welcome the officials from the Federal Transit Administration. We are pleased today to have the new Administrator, Mr. Gordon Linton and the new Deputy Administrator, Ms. Grace Crunican.

We look forward to your testimony and since this is the first appearance for both of you before the Committee, we will place your biographical information in the record, and we ask that you would summarize your statement to allow maximum time for the questions that I know the Members have. I would also like to recognize and welcome the Assistant Secretary once again to the Committee. It is also nice to have you here.

If everybody is set, we will ask for your testimony, and like I say, we will put your full statement in the record and we would like to have you hit the high points so we can get right to questions. I know that there is a high attendance by the Committee Members here, and I know they are anxious to ask you questions.

I am delighted to have my colleagues here. And we are delighted to have you here as well. We want to commend your professional staff over at FTA for the fine job they did in the long months before the Administrator was named. They did a fine job in a very professional way, but I think we are all relieved to find that the duly appointed authority is now in place and welcome you on your first appearance before the Committee.

STATEMENT OF GORDON LINTON

Mr. LINTON. Thank you, Mr. Chairman, and to the Members of the Committee, as you indicated, I had a fuller document that has been submitted for the record, but I would like to read a smaller statement as we start our hearing this morning.

First, let me introduce my colleagues who are here with me today. On my immediate right is Grace Crunican, our Deputy Administrator. Next is Greg McBride, the Deputy Chief Counsel. On my far right is Larry Schulman, Associate Administrator for the Office of Technical Assistance and Safety.

On my immediate left is Bob McManus, Associate Administrator for Grants Management. Next is John Spencer, the Deputy Associate Administrator for Budget and Policy and on my far left, representing the Secretary is Louise Stoll, the Assistant Secretary for Budget and Programs.

As you stated, Mr. Chairman, this is my first appearance before you and this subcommittee, and it is my first opportunity to discuss the Clinton administration's budget request for federal transit assistance in fiscal year 1995. I am honored to have been chosen to lead the Federal Transit Administration, a responsibility that I do not take lightly.

Before tackling the budget, Mr. Chairman, I would like to tell you a little bit about me and my philosophy. For the past 11 years, I have served as a state legislator in the Pennsylvania house of representatives representing a district in northwest Philadelphia. And many of my constituents there absolutely and positively relied on public transit to carry out their daily tasks. So therefore, I know what reliance on public transportation means.

When I came to FTA, I came with the understanding that public transportation needs to have substantial and predictable revenue systems. That is why I fought to increase the level of transit capital funding, especially for the formula programs.

I also understand that people is what we are about. The FTA is not just another organization. I view it as people organized to serve people.

STRATEGIC PLAN

One of my major initiatives in the FTA has been to forge a strategic plan to help us focus on a shared vision and a common mission. Already I have found the development of the strategic plan has served to bring the staff together in a more cooperative effort and has helped to clarify that we exist to serve not only the transit properties, but the transit riders as well, our ultimate customers.

My people orientation also provides the inputs to work to achieve full accessibility to transit for all.

I also believe it is time to change some of the basic terms of reference we use when we talk about mass transit and attempt to evaluate its performance.

Secretary Peña continually tells us that we fail in our mission if we ignore the human dimension in transportation. But isn't that exactly what we do when we try to understand mass transit and mass transit investment, in terms of the number of trips transit generates and not the people the transit serves?

TRANSIT IS FOR PEOPLE

We are all familiar with statements like this: transit carries something like 2 or 3 percent of all daily trips in America. Transit continues to lose market share to the private automobile.

Mr. Chairman, let me suggest that we look at this from a different view point: 80 million American people are either too young to drive, too old to drive, or live in households that have no access to an automobile. Eighty million men, women, and children represent 35 percent of the Nation's population. Twenty-five percent of urban Americans, or over 40 million Americans, can be characterized as regular users of mass transportation, although not all on a daily basis.

These tens of millions of people are miscounted, but far more tragically, they are undervalued when we restrict our discussions of mass transit to the percent of trips transit represents.

People, that is the indivisible unit of importance in our country, not some contrived statistic which by its very use distorts the reality we seek to understand.

FEDERAL AID TO TRANSIT

Over the years, Mr. Chairman, this Committee, together with your colleagues in the Senate and in conjunction with the agency it is my privilege to serve, have collaborated and made over $65 billion available to mass transit agencies across our country. I believe this has been a prudent investment.

We have built new rail transit systems in more than a dozen places where previously they had not existed. We have upgraded deteriorating infrastructure put in place in some cases in the 19th century and made it ready to meet the new demands of the 21st century.

But above all, we have improved mobility for the American people. Now, I suggest that our job is far from complete. It is possible, and I believe perfectly accurate to say that more people have mobility options today than they ever had before in the history of our nation.

I shudder to think about the state of our central cities if today the federal transit program had not been available over the past three decades.

Not only does transit provide basic mobility to some 80 million Americans, but it also assists in congestion management. When a traveler is diverted to transit, not only does that person benefit, but also the people who travel the highways. For now the congestion they must experience is reduced and their travel time shortened.

A third function of transit is its ability to preserve and strengthen the economic vibrancy of central business distribution and pedestrian-oriented neighborhoods. This is known as livable communities. These are the types of concepts to which I refer when I talk about my orientation to people and the orientation to the transit program: To provide basic mobility, to manage congestion, and to assist livable communities.

FISCAL YEAR 1995 BUDGET REQUEST

Now, if I could, let us discuss the numbers. The budget which you have before you today, Mr. Chairman and Members of the Committee, should it be approved, will provide the largest one year funding level in the history of our agency.

At $4.76 billion, it is a 4 percent increase over this year's $4.58 billion. To understand what this really means, though, our submission for 1995 should be contrasted to the enacted budget for fiscal year 1993. In round numbers, it is $1 billion larger.

At a time when all federal expenditures are under extremely severe pressure, the Clinton administration is saying that assistance for mass transit is an important national priority deserving of additional support. Mr. Chairman, this fact speaks for itself.

SECTION 9 CAPITAL INCREASE

I would like to add, however, that we seek to target these funds. Specifically, we want to bring the formula assistance programs up to their fully authorized ISTEA level. The focus gets even sharper when we seek to emphasize the capital component of the section 9 urban formula programs. The capital side of section 9 has been insufficiently funded in recent years. Yet, it is only the capital portion of section 9 that can become the steady and dependable, year-after-year funding resource that transit managers need to make serious, long-term strategic investment decisions.

I will again contrast our proposal for next year with the budget that was in effect this time last year and tell you that in fiscal year 1995 we propose to increase capital resources in section 9 by 170 percent over what they were in fiscal year 1993. This is in essence the strength of our proposal.

Now, I will admit, Mr. Chairman, to you and to the Members of the Committee, that we had to make tough choices and tough decisions, but it is our view that focusing those investments strategically in the area of our formula capital grants, we, in fact, provide the best bang for the taxpayer's investment.

That is the essence of our proposal before you today, and I am prepared and the members of my staff who have joined me are prepared to answer those questions that you may have at this time.

[The prepared statement and biography of Gordon Linton and biography of Grace Crunican follow:]

STATEMENT OF GORDON J. LINTON

ADMINISTRATOR, FEDERAL TRANSIT ADMINISTRATION

BEFORE THE SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

COMMITTEE ON APPROPRIATIONS, U.S. HOUSE OF REPRESENTATIVES

WEDNESDAY, APRIL 13, 1994

Good morning Mister Chairman and members of the committee.

My name is Gordon Linton; I am the Administrator of the Federal Transit Administration and I am pleased to present the Clinton Administration's proposed budget for Federal mass transit assistance in Fiscal Year 1995.

I am also honored, personally, by this opportunity to appear before the committee for the first time. I look forward to discussing with you, not only the specifics of our budget proposal, but larger issues associated with mass transportation and the Federal Transit Administration.

Before continuing, I would like to introduce several of my associates at the FTA to you, Mister Chairman, and through you, to the committee. Some are newcomers who are part of Secretary Peña's team; others are career veterans you have come to know over the years:

Grace Crunican, Deputy Administrator

Robert H. McManus, Associate Administrator for Grants Management

Gregory B. McBride, Deputy Chief Counsel

Lawrence L. Schulman, Associate Administrator for Technical Assistance and Safety

John W. Spencer, Deputy Associate Administrator for Budget and Policy

If asked to identify the most important features of our budget, Mister Chairman, I would mention two:

First, its overall level of funding, the highest in FTA history; and second, its concentration of Federal resources on the capital side of the formula programs.

At a time of extraordinary fiscal austerity all across the Federal Government, at a time when whole Federal programs are being eliminated because their cost exceeds their benefit, at a time when budgetary increases are reserved for only the most deserving of Federal activities...

At such a time, and under such conditions, the Clinton Administration is seeking budgetary increases for Federal mass transit assistance.

I think, Mister Chairman, this simple fact says more than any formal statement ever could about the Federal Transit Administration, its program, its mission, and the priority it enjoys under President Clinton and Secretary Peña.

Equally important, though, is focusing our resources on capital investment and re-investment. If we have the opportunity today to add greater permanence and greater stability to our principal source of capital dollars for mass transit investment, we can have confidence those dollars will pay long term dividends for the American people over and over again.

If we divert those dollars to more immediate purposes we will solve a short term problem. But we will surrender a priceless opportunity for permanent and long-term gain.

We are asking the committee to approve $4.8 billion for Fiscal Year 1995.

This is an increase of 4 percent, or $179 million, over the current fiscal year; This is an increase of 25 percent, or $962 million, over the budget the FTA was operating under this time last year in FY 1993.

Let me also mention, at this point, that FTA is undertaking a new initiative in FY 1995, the Congestion Relief Transit Incentive Grant program. The purpose of this program will be to encourage localities to implement congestion mitigation activities required in ISTEA, and serves as a forerunner to an Administration initiative to relieve urban congestion. Ten percent of the funds will be set-aside from each urbanized area's apportionment. Any project that alleviates traffic congestion in the urban area will be eligible.

The most critical element in our proposed budget is raising the level of capital assistance provided by our various formula programs. I speak of Section 9 primarily, but I include Section 16, and Section 18, as well.

In Fiscal Year 1995, formula resources delivered under these three programs will be $450 million more than this year, an increase of 19 percent. Furthermore, because of the way we target resources on the capital side of the formula program, I can report to you this morning that capital-only dollars delivered under the Section 9 Urban Formula program will go from $1.4 billion this year to $2 billion next year, an increase of 44 percent.

Let me put this increase in an even more important context, Mister Chairman.

Just one year ago, in Fiscal Year 1993, the Section 9 Urban Formula program delivered $758 million in capital-only resources. If Congress approves our budget request, the capital component of Section 9 will see a two-year increase from Fiscal Year 1993 to Fiscal Year 1995 of 170 percent, from $758 million to $2 billion.

This new and re-directed money will help transit systems throughout the country modernize their fleets, replace overage equipment, invest in new maintenance and service facilities, expand service into new markets, and help realize important national priorities in areas such as clean air and transportation for disabled Americans.

We are at a tricky point, though, Mister Chairman. because of serious under funding of the section 9 capital resource in recent years, there is a large backlog of demand among our grantees, especially in the bus and bus-related area.

For example, we currently have at least $732 million in unfunded bus requests among our grantees; we know for a fact that $287 million of this amount is in the form of already submitted grant applications that are complete and approvable in all respects.

I would urge, however, that we not deal with this backlog on a case-by-case basis by shifting funds to the Section 3 bus program, but rather that we let an enhanced Section 9 formula program work it down in more orderly fashion.

This is why we are seeking, in our FY 1995 budget, no increase in Section 3 bus funding. A relatively small Section 3 bus program is important, and can help in cases where capital needs are, indeed, extraordinary. But I can see a day when, Section 9 having been stabilized at sufficient levels, the Section 3 bus program could either be substantially reduced in size with its resources shifted elsewhere, or else converted into a formula program itself.

One element of Section 3 that Congress has already converted to formula allocation is the rail modernization program.

We seek level funding for this program in fiscal year 1995, the same $760 million appropriated for the current fiscal year.

Fixed Guideway Modernization is a quiet program among the FTA's activities; it deals with the same relatively small number of grantees year after year. Because these grantees supplement Section 3 Fixed Guideway Modernization money with additional money from Section 9, total Federal resources used for Fixed Guideway Modernization usually approach, and often exceed a billion dollars a year.

Fixed Guideway Modernization is also a noteworthy success story:

---The backlog of deferred maintenance at the older rail transit systems is being steadily worked down, as a recent study has documented;

---Rail transit overall shows extremely positive trends in patronage and utilization.

I suggest that at least one reason for this pleasant state of affairs is the fact that the entire Fixed Guideway Modernization program is now delivered to its constituents by predictable formula allocation. Genuinely long-term plans can confidently be made, and money flows in predictable fashion.

Let me also, Mister Chairman, tell the committee of a small change we made this year in the delivery of the Section 9 formula program.

This year we have incorporated automatic letter-of-no-prejudice authority into the publication of our formula apportionments. It is our intention to do so every year.

In the past, letters-of-no-prejudice were relatively easy to obtain under the formula program. But it was a multi-stage paperwork exercise and even with the best of intentions, and the most dedicated of staff, paperwork is time-consuming.

It will probably take several budgetary cycles for our grantees to acclimate themselves fully to the new flexibilities this represents, and to realize that advancement of projects into actuality no longer has to wait on the issuance of a grant contract from the FTA. They can freely spend their own funds on a capital project, repay themselves with federal money once the grant is approved, and then re-start the cycle all over again the following year.

Administrative reforms like this are precisely what Vice President Gore has in mind in his National Performance Review.

Mister Chairman, bringing the FTA formula program to full ISTEA funding levels obviously involved trade-offs and choices. Let me talk about these choices and these trade-offs for a moment. None of them were easy; but none of them were arbitrary, either.

We have, as you know, reduced our request for New Starts funding to $400 million.

We support the New Starts program. We are proud that the FTA has been a partner with state and local agencies in the construction of new rail transit systems, quite literally, from coast to coast

I believe it is worth pausing, for a moment, and reflecting on the fact that today, thirty years after the Federal Transit Act of 1964 was passed into law, new rail transit systems are in operation, and carrying people on their daily rounds, in more than a dozen U.S. cities where previously no such systems existed.

This is a positive and important accomplishment, Mister Chairman, and one whose cumulative impact we can all too easily undervalue as we debate the merits of this particular New Start project or that one.

But despite such general support, and even without the current austerity that surrounds the Federal budgetary process, I would suggest that it is fiscally unwise for a New Starts program with annual Federal appropriations at roughly the half-a-billion dollar a year level to have annual unobligated carry-forward balances at the end of each year of over a billion dollars, twice the annual appropriation level. This simply is not sound management.

We say that Section 3 New Starts resources should be allocated to programs and projects whose time line for completion is more immediate.

We seek money in next year's budget only for those New Starts projects that are currently covered by full-funding grant agreements, that are ready to pour cement, so to speak.

This year we believe restraining New Starts ... or perhaps I should say restraining new money for 'new' New Starts ... is a the wiser course of action, it frees up additional resources that are needed if we are to fund the formula programs at full ISTEA levels.

Another area where we believe a trade off of resources is necessary involves operating subsidies. Before I go any further with respect to the Administration's budget request for FY 1995, let me say something more general.

The whole subject of Federal mass transit operating subsidies requires a fresh look as we proceed toward our next reauthorization, something that is not that far off.

Believe me, Mister Chairman, you have before you today a witness who I doubt very much would even be here were it not for a successful fight I waged over many years in the Pennsylvania State Legislature to enact a dedicated source of funding to meet mass transit operating deficits in one of the Nation's most transit-intensive states.

I know something about this subject.

But I also know that a Federal program that supplies a small and steadily shrinking percentage of total operating costs for transit in general will always remain vulnerable and questionable. I suggest, Mister Chairman that we have an unsettled and important issue of national transportation policy here that requires reflection and deliberation, and most importantly the development of as wide a range of creative options as possible that might lead to permanent solution.

For the short term, however, we are proposing shifting $200 million that is currently eligible for operating or capital purposes and restricting it to capital investment only. I have made my arguments for the importance of fully-funding the capital elements of the formula program; that is our rationale for this proposal with respect to operating subsidies. You will not hear from this Administration fault-finding with transit operations in general, or any deprecation of the importance of mass transit to the life and vitality of our cities and rural areas.

What you will hear, though, is that this Administration laid out alternatives and made difficult choices.

We cannot have capital funding for the formula program at fully authorized levels if we maintain the status quo with New Starts and with operating subsidies. We believe full funding for capital formula is a better deal for everyone. Mister Chairman, I would ask your permission to have a document included in the record of the committee's hearing this morning:

It is a table showing our estimates of the city-by-city impact that the Clinton Administration's transit assistance budget will have next year with respect to the formula program.

Picking a large midwest city from the list totally and completely at random, Mister Chairman, we see that under our proposal, capital resources available for investment in mass transit infrastructure in Detroit will increase by 133 percent next year, from $8.1 million to $19.0 million

This will be a substantial and I dare say badly needed increase. But this is also an increase that simply will never happen unless one is willing to lay out alternatives and make choices

Let me touch very quickly, Mister Chairman, on a few additional subjects; each is important for understanding why we are seeking the appropriation levels we are seeking.

We are asking to increase the size of the FTA staff.

I call upon the committee, Mister Chairman, to recognize that, even in the face of government-wide personnel reductions, both the Department of Transportation and the Office of Management and Budget agree that the FTA needs additional human resources. We have a growing workload that requires sound management:

---We have recently announced new regulations mandating drug and alcohol testing of transit employees;

---We are in the midst of reviewing compliance on the part of transit agencies with their new statutory responsibilities under the Americans with Disabilities Act;

---We are participating in active fashion in the Clinton Administration's efforts to convert a huge national industrial capability that was born in the cold war to peaceful pursuits within a domestic economy;

---In conjunction with the Federal Highway Administration we have recently issued a comprehensive set of new ISTEA-mandated planning regulations. We hope to monitor and manage the implementation of these new regulations to ensure that flexible funding options sanctions by ISTEA are considered at the state and local level in a fair and timely fashion;

---And we stand committed to a vigorous approach to the question of program oversight as a means of ensuring that valuable dollars Congress appropriates for transit investment are used wisely and well.

To do these things, Mister Chairman, we need additional staff.

With respect to the question of program oversight at the FTA, I understand the committee has already taken testimony to the effect that our agency is falling behind oversight goals established by the previous Administration.

I would like to assure the committee this is not the case.

True, we have not embraced the previous Administration's specific plan for structural re-organization of the FTA This is because both Vice President Gore's National Performance Review and an important strategic planning exercise within our agency that is now nearing completion must be allowed to help shape our action in this area.

In a letter to President Clinton written on December 30 of last year, Secretary Peña gave assurances that, ".. FTA will have taken the actions necessary to correct the deficiencies by December 1994."

This is fully consistent with all previously established timetables and I personally assure you, Mister Chairman, that I have familiarized myself with these issues.

There is a modest new initiative included under our budget request for Section 3. Entitled "Livable Communities," it will be an effort, through small grant and demonstration projects, to help grantees go the extra mile in making sure their transit investments are genuinely adapted to the mobility needs of the communities they serve.

Billions of dollars can be spent on a new rail transit system. But we're wasting a good portion of those billion dollars, in my view, if a station on the new line that serves a residential neighborhood is located on the opposite side of a four-lane roadway with fast-moving traffic that transit riders cross only at serious personal peril.

Thus we are asking that $30 million of Section 3 discretionary money be used for this initiative; we believe current authorization language covers such a set-aside.

On the subject of discretionary money in general, Mister Chairman, I would be remiss if I did not report to the committee our progress in managing the un-earmarked funds that the Committee provided us in this year's appropriation

Speaking both for myself and for the department, we regard the Committee's action last year in not earmarking the entirety of either the New Starts account or the Bus account as a very helpful step in establishing a more cooperative relationship between our two branches.

With respect to the $45 million in unearmarked unobligated balance of Section 3 New Start money, I can report that it was used to partially cover the funding shortfall for two projects currently under full-funding grant agreements.

With respect to the $73 million in unearmarked bus money, we have already obligated the full amount to 29 different agencies from coast to coast, and we made our funding decisions based on such criteria as ability to move quickly into contract and need for new vehicles to conform with Clean Air or ADA requirements.

Mister Chairman, let me now address activities funded under Section 26, what ISTEA calls Transit Planning And Research. We seek the same level of funding for all sub-elements of this program as we have in the current fiscal year; all are important. You have already heard Secretary Peña talk about the importance he places on transportation research.

The area of reducing air pollution caused by transit buses isn't just a mandate of the Clean Air Act; it is also a research area we are actively pursuing on several fronts in a concerted effort to help those buses show the way to an America with cleaner air. The subject of defense conversion is often talked about; we have a number of projects whose goal is to tap the expertise and capability of one-time defense contractors and focus their resources on solving mass transit problems.

The Vice President is re-inventing government, Mister Chairman. The FTA, in cooperation with a number of partners, is re-inventing the bus ... and seeking to deploy space-age technology to produce a lighter, cleaner and more fuel-efficient vehicle known as the Advanced Technology Transit Bus.

I could talk at some length about many projects whose unifying theme is the development and deployment of new information technologies to help transit do its job better, or to help transit customers make smarter travel choices or both.

We have three on-site demonstrations underway--in Denver, Milwaukee and Dallas--to see if mass transit can improve its overall fleet management performance by use of information from the satellite-based Global Positioning System.

That's GPS ... which isn't to be confused with GIS, or Geographic Information System.

What we have underway in our GIS program is an effort to translate mass transit route and service information from all over the country into a universal computer program, something that will be absolutely necessary if transit is to play a role in the comprehensive hat National Transportation System that Secretary Peña sees as a logical follow-on to the National Highway System already mandated by law.

Finally, Mister Chairman, let me say one very short word about a change in attitude we are seeking to bring to the Federal transit assistance program, and to the mass transit community, at large. In its way, it could prove to be more important than all the capital grants and all the billions of dollars.

We have all heard much talk over the years about mass transit's diminishing market share in the overall U.S. travel equation. We are all familiar with statistical information that talks about two or three percent of overall trips that transit represents. Percentage of trips into downtown at rush hour; percentage of work trips; percentage of all trips. But always percentages, and always trips.

I am not gainsaying these statistics, Mister Chairman. But I am saying that maybe we're looking at things through the wrong end of the telescope.

Recent examination of already existing data puts things in a radically different perspective:

---Thirty-two percent of the American people are either too young to drive, too old to drive, or live in households that have no automobile. Thirty-two percent of the American people represents 80 million individuals.

---Twenty-five percent of urban Americans, or 40 million people, use mass transit with some regularity, although not necessarily on a daily basis.

The simple fact of the matter, of course, is that people who use transit -- either by necessity or by choice -- simply do not take as many trips as those for whom the private automobile is the primary mode of travel.

This is one of the reasons why transit's market share is low.

All these years we've been concentrating on the "number of trips taken," and we've been perfectly willing to assume that transit's importance to society is directly proportional to its share of the travel market.

But what if we've been wrong?

What if we've been trying to understand transit in a reductionist way that is guaranteed to diminish its importance and present it in the poorest possible light?

During my tenure as the Federal Transit Administrator, we intend to challenge the terms of reference this Country uses when it talks about mass transit and urban travel. We're going to start talking about transit in terms of the people it serves, not the percent of trips it carries. I think this dialogue will lead us in some interesting and challenging new directions.

Mister Chairman, thank you very much for this opportunity to introduce myself to the Committee and to present the Clinton Administration's budget for Federal transit assistance for Fiscal year 1995.

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS OVER 1,000,000 IN POPULATION:

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 SECTION 9 CAPITAL	FY 1994 OPERATING ASSISTANCE	FY 1995 SECTION 9 APPORTIONMENTS	FY 1995 SECTION 9 CAPITAL	FY 1995 OPERATING ASSISTANCE
Atlanta, GA	$30,083,986	$24,009,130	$6,074,856	$35,628,585	$31,085,380	$4,543,205
Baltimore, MD	26,054,703	16,331,404	9,723,299	30,856,759	23,584,991	7,271,768
Boston, MA	61,479,284	43,223,841	18,255,443	72,808,985	59,156,279	13,652,706
Chicago, IL-Northwestern IN	158,569,976	107,993,290	50,576,686	187,793,143	149,968,335	37,824,808
Cincinnati, OH-KY	11,504,677	6,237,817	5,266,860	13,561,944	9,623,015	3,938,929
Cleveland, OH	19,754,267	10,117,659	9,636,608	23,353,942	16,147,008	7,206,934
Dallas-Fort Worth, TX	28,050,854	19,409,276	8,641,578	33,221,553	26,758,772	6,462,781
Denver, CO	17,088,381	11,188,841	5,899,540	20,238,264	15,826,172	4,412,092
Detroit, MI	29,515,588	8,121,748	21,393,840	34,956,264	18,956,443	15,999,821
Ft Lauderdale-Hollywood-Pompano Bch, FL	15,698,048	8,360,717	7,337,331	18,591,320	13,103,947	5,487,373
Houston, TX	32,776,647	23,696,166	9,080,481	38,817,997	32,026,973	6,791,024
Kansas City, MO-KS	7,923,974	3,461,247	4,462,727	9,384,657	6,047,116	3,337,541
Los Angeles, CA	142,710,839	85,649,446	57,061,393	169,015,859	126,341,330	42,674,529
Miami-Hialeah, FL	28,469,483	20,087,886	8,381,597	33,716,907	27,448,558	6,268,349
Milwaukee, WI	14,098,369	8,637,358	5,461,011	16,697,171	12,613,042	4,084,129
Minneapolis St. Paul, MN	19,247,771	11,966,338	7,281,433	22,796,539	17,349,971	5,446,568
New Orleans, LA	12,941,334	6,336,028	6,605,306	15,326,685	10,386,772	4,939,913
New York, NY Northeastern NJ	498,647,056	366,496,864	132,150,192	590,539,691	491,708,469	98,831,222
Norfolk-Virginia Beach Newport News, VA	8,533,816	4,338,093	4,195,723	10,106,898	6,969,041	3,137,857
Philadelphia, PA-NJ	92,632,339	60,820,274	31,812,065	109,703,525	85,912,222	23,791,303
Phoenix, AZ	17,783,269	13,078,620	4,704,649	21,061,092	17,542,624	3,518,468
Pittsburgh, PA	25,708,162	16,212,303	9,495,859	30,446,716	23,345,044	7,101,672
Portland-Vancouver, OR-WA	16,653,099	12,253,170	4,399,929	19,722,655	16,432,078	3,290,577
Riverside-San Bernardino, CA	7,708,242	5,193,448	2,514,794	9,129,152	7,248,412	1,880,740
Sacramento, CA	9,851,554	6,373,616	3,477,938	11,667,389	9,066,342	2,601,047
San Antonio, TX	14,613,666	10,037,319	4,576,347	17,307,407	13,884,893	3,422,514
San Diego, CA	29,225,654	21,923,504	7,302,150	34,612,444	29,151,382	5,461,062
San Francisco-Oakland, CA	91,452,351	72,009,519	19,442,832	108,306,307	93,765,588	14,540,719
San Jose, CA	21,807,960	15,202,188	6,605,772	25,827,382	20,887,121	4,940,261
San Juan, PR	10,589,419	3,081,454	7,507,965	12,541,293	6,926,308	5,614,985
Seattle, WA	37,694,803	31,525,108	6,169,695	44,642,069	40,027,937	4,614,132
St. Louis, MO-IL	16,683,616	7,097,319	9,586,297	19,758,938	12,589,630	7,169,308
Tampa-St. Petersburg-Clearwater, FL	11,770,161	6,550,768	5,219,393	13,939,824	10,036,394	3,903,430
Washington, DC-MD-VA	71,215,603	54,337,345	16,878,258	84,340,151	71,717,401	12,622,750
SUBTOTAL	$1,638,538,951	$1,121,359,102	$517,179,848	$1,940,418,507	$1,553,634,987	$386,783,520

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION

	FY 1994			FY 1995		
URBANIZED AREA	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE
Akron, OH	$4,848,858	2,345,899	$2,303,157	$5,506,820	3,783,357	$1,722,463
Albany-Schenectady-Troy, NY	5,749,382	3,515,572	2,233,810	6,809,180	5,138,580	1,670,800
Albuquerque, NM	4,493,859	2,949,955	1,543,704	5,322,014	4,187,524	1,154,490
Allentown-Bethlehem-Easton, PA-NJ	3,430,725	1,095,203	2,335,522	4,083,137	2,318,489	1,748,888
Anchorage, AK	1,901,495	1,139,297	762,198	2,252,012	1,881,987	570,025
Ann Arbor, MI	3,023,713	2,044,419	979,294	3,581,102	2,848,717	732,385
Augusta, GA-SC	1,588,000	607,890	780,110	1,880,727	1,297,306	583,421
Austin, TX	8,000,976	7,531,889	1,469,087	10,860,163	9,561,476	1,098,887
Bakersfield, CA	2,901,356	1,943,461	957,895	3,436,179	2,719,798	716,381
Baton Rouge, LA	2,266,549	986,511	1,280,038	2,884,357	1,727,055	957,302
Birmingham, AL	4,615,879	2,264,544	2,351,335	5,466,743	3,708,249	1,758,494
Bridgeport-Milford, CT	4,968,073	2,926,881	2,041,382	5,883,730	4,357,033	1,526,897
Buffalo-Niagara Falls, NY	10,293,906	4,301,762	5,992,124	12,191,379	7,710,047	4,481,332
Canton, OH	1,544,095	416,217	1,127,878	1,828,734	985,227	843,507
Charleston, SC	2,372,078	1,302,735	1,069,343	2,809,331	2,009,601	799,730
Charlotte, NC	4,575,705	3,286,592	1,289,113	5,419,156	4,455,066	984,090
Chattanooga, TN-GA	2,014,246	1,042,433	971,813	2,385,540	1,658,750	726,790
Colorado Springs, CO	2,856,631	1,991,903	984,728	3,501,840	2,780,149	721,491
Columbia, SC	2,277,530	1,185,844	1,091,686	2,697,364	1,880,924	816,440
Columbus, GA-AL	1,485,033	667,068	817,965	1,758,761	1,147,049	611,732
Columbus, OH	9,161,336	4,815,366	4,345,970	10,850,084	7,599,862	3,250,222
Corpus Christi, TX	2,664,562	1,806,152	858,410	3,155,742	2,513,762	641,980
Davenport-Rock Island-Moline, IA-IL	2,384,435	1,267,510	1,116,925	2,823,979	1,988,664	835,315
Dayton, OH	9,636,632	6,744,730	2,891,902	11,412,774	9,250,006	2,162,768
Daytona Beach, FL	1,715,052	939,441	775,611	2,031,197	1,451,140	580,057
Des Moines, IA	2,214,437	1,126,613	1,087,824	2,622,635	1,809,084	813,551
Durham, NC	2,032,878	1,233,435	799,443	2,407,613	1,808,733	597,880
El Paso, TX-NM	6,660,262	4,881,024	1,779,238	7,887,884	6,557,245	1,330,639
Fayetteville, NC	1,201,637	465,940	735,697	1,423,144	872,938	550,206
Flint, MI	2,808,906	1,295,698	1,513,208	3,326,690	2,195,007	1,131,683
Fort Myers-Cape Coral, FL	1,630,298	1,065,307	564,991	1,930,819	1,508,279	422,540
Fort Wayne, IN	1,719,617	640,622	1,078,995	2,036,612	1,229,663	808,949
Fresno, CA	4,173,753	2,721,709	1,452,044	4,943,132	3,857,191	1,085,941
Grand Rapids, MI	3,313,688	1,778,936	1,534,752	3,924,527	2,776,731	1,147,798
Greenville, SC	1,600,681	858,859	741,822	1,895,748	1,340,981	554,787
Harrisburg, PA	1,940,695	820,351	1,120,344	2,298,436	1,480,584	837,872
Hartford-Middletown, CT	7,403,742	5,130,182	2,273,560	8,768,438	7,068,110	1,700,328
Honolulu, HI	16,520,800	13,705,047	2,815,753	19,565,748	17,459,928	2,105,818
Indianapolis, IN	6,702,540	2,919,209	3,783,331	7,938,055	5,108,613	2,829,442
Jackson, MS	1,562,870	668,501	894,369	1,850,972	1,182,100	668,872
Jacksonville, FL	6,225,444	4,220,869	2,004,575	7,373,005	5,873,842	1,499,163
Knoxville, TN	1,980,258	1,088,682	891,576	2,345,296	1,878,513	856,783
Lansing-East Lansing, MI	2,612,867	1,461,952	1,150,915	3,094,515	2,233,780	860,735
Las Vegas, NV	5,325,834	3,959,624	1,366,210	6,307,535	5,285,787	1,021,748
Lawrence-Haverhill, MA-NH	2,858,674	2,012,937	845,737	3,385,545	2,753,043	632,502
Lexington-Fayette, KY	1,825,708	542,774	1,282,934	2,152,258	1,202,787	959,469

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND
FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION:

	FY 1994			FY 1995		
URBANIZED AREA	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE
Little Rock-North Little Rock, AR	$2,071,076	1,045,224	$1,025,851	$2,452,851	1,685,647	$767,204
Lorain-Elyria, OH	1,160,675	386,821	773,854	1,374,633	795,891	578,742
Louisville, KY-IN	8,430,737	4,566,796	3,863,941	9,984,817	7,095,090	2,889,727
Madison, WI	3,986,739	2,999,706	987,033	4,721,601	3,983,428	738,173
McAllen-Edinburg-Mission, TX	1,082,405	262,387	820,018	1,281,936	668,669	613,267
Melbourne-Palm Bay, FL	2,049,843	1,352,757	697,166	2,427,827	1,906,423	521,404
Memphis, TN-AR-MS	7,531,966	3,950,908	3,581,058	8,920,359	6,242,192	2,678,167
Mobile, AL	2,030,495	1,032,583	997,912	2,404,787	1,658,478	746,309
Modesto, CA	2,377,871	1,395,728	982,143	2,816,202	2,081,686	734,516
Montgomery, AL	1,287,275	271,856	1,015,419	1,524,568	765,166	759,402
Nashville, TN	4,531,306	2,870,985	1,660,321	5,366,578	4,124,873	1,241,706
New Haven-Meriden, CT	7,704,873	5,410,950	2,293,923	9,124,840	7,409,283	1,715,557
Ogden, UT	2,345,304	1,651,986	693,318	2,777,625	2,259,113	518,512
Oklahoma City, OK	4,237,841	1,939,878	2,297,963	5,019,039	3,300,460	1,718,579
Omaha, NE-IA	4,801,246	2,444,530	2,356,716	5,686,297	3,923,779	1,762,518
Orlando, FL	8,025,987	6,291,863	1,734,124	9,505,450	8,208,550	1,296,900
Oxnard-Ventura, CA	3,215,027	1,870,147	1,344,880	3,807,680	2,801,884	1,005,796
Pensacola, FL	1,826,904	1,075,321	751,583	2,163,671	1,601,584	562,087
Peoria, IL	1,866,083	818,896	1,047,187	2,210,074	1,426,914	783,160
Providence-Pawtucket, RI-MA	13,034,375	8,326,796	4,707,579	15,436,665	11,916,006	3,520,659
Provo-Orem, UT	2,106,428	1,299,353	807,075	2,494,717	1,891,129	603,588
Raleigh, NC	2,185,369	1,461,143	724,226	2,588,204	2,046,577	541,627
Reno, NV	3,087,638	2,252,740	834,898	3,656,799	3,032,403	624,396
Richmond, VA	5,312,022	3,393,759	1,918,283	6,291,210	4,856,598	1,434,612
Rochester, NY	6,258,806	3,183,783	3,075,023	7,412,529	5,112,810	2,299,719
Rockford, IL	1,540,483	576,821	963,662	1,824,453	1,103,758	720,695
Salt Lake City, UT	10,571,189	8,139,092	2,432,107	12,519,790	10,700,889	1,818,901
Sarasota-Bradenton, FL	2,898,361	1,642,882	1,255,479	3,432,643	2,493,707	938,936
Scranton-Wilkes-Barre, PA	2,877,754	1,152,393	1,725,361	3,408,233	2,117,887	1,290,346
Shreveport, LA	2,098,930	1,051,271	1,045,659	2,483,467	1,701,450	782,017
South Bend-Mishawaka, IN-MI	1,916,913	774,626	1,142,287	2,270,273	1,415,991	854,282
Spokane, WA	4,549,106	3,440,679	1,108,427	5,387,679	4,558,719	828,960
Springfield, MA-CT	4,933,783	2,919,965	2,013,818	5,843,258	4,337,183	1,506,075
Stockton, CA	2,641,498	1,311,771	1,329,727	3,128,429	2,133,966	994,463
Syracuse, NY	4,433,613	2,545,640	1,887,973	5,250,889	3,838,929	1,411,960
Tacoma, WA	7,123,650	5,580,433	1,543,217	8,436,758	7,282,632	1,154,126
Toledo, OH-MI	4,847,916	2,618,320	2,229,595	5,741,566	4,074,118	1,667,448
Trenton, NJ-PA	3,870,563	1,902,002	1,968,561	4,583,959	3,111,731	1,472,228
Tucson, AZ	6,545,822	4,896,465	1,649,356	7,752,445	6,518,940	1,233,505
Tulsa, OK	3,606,816	2,045,181	1,561,635	4,271,684	3,103,783	1,167,901
West Palm Bch-Boca Raton-Delray Bch, FL	10,232,371	8,588,728	1,643,643	12,118,167	10,888,935	1,229,232
Wichita, KS	2,543,057	1,192,069	1,350,998	3,011,850	2,001,479	1,010,371

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION:

	FY 1994			FY 1995		
URBANIZED AREA	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE
Wilmington, DE-NJ-MD-PA	$4,577,511	2,579,395	$1,998,116	$5,421,260	3,926,928	$1,494,332
Worcester, MA-CT	2,806,263	1,652,909	1,153,354	3,323,567	2,461,008	862,559
Youngstown-Warren, OH	1,995,069	218,273	1,776,796	2,362,839	1,034,026	1,328,813
SUBTOTAL	$373,142,570	228,302,978	$144,839,582	$441,923,636	333,602,387	$108,321,249

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

ALABAMA	$4,023,845	1,055,926	$2,967,919	$4,765,256	2,545,637	$2,219,619
ALASKA	0	0	0	0	0	0
ARIZONA	638,913	327,196	311,717	756,635	523,511	233,124
ARKANSAS	1,537,398	334,492	1,202,906	1,820,670	921,052	899,618
CALIFORNIA	23,549,604	13,306,038	10,243,566	27,888,714	20,227,853	7,660,861
COLORADO	4,339,243	1,569,124	2,770,119	5,138,768	3,067,078	2,071,690
CONNECTICUT	14,761,548	7,654,719	7,106,829	17,481,425	12,099,841	5,381,584
DELAWARE	327,362	183,655	143,707	387,680	280,206	107,474
FLORIDA	9,977,296	5,228,509	4,748,787	11,815,656	8,264,178	3,551,478
GEORGIA	4,368,310	1,100,374	3,267,836	5,173,190	2,729,197	2,443,993
HAWAII	1,160,989	444,294	716,695	1,374,906	838,911	535,995
IDAHO	2,297,799	1,078,198	1,219,601	2,721,177	1,809,073	912,104
ILLINOIS	10,525,078	2,435,037	8,090,041	12,464,367	6,414,065	6,050,302
INDIANA	6,138,682	1,524,291	4,614,391	7,269,760	3,818,793	3,450,967
IOWA	3,341,820	664,200	2,677,620	3,957,565	1,955,052	2,002,513
KANSAS	1,622,561	477,948	1,144,613	1,921,523	1,065,500	856,023
KENTUCKY	1,278,842	321,597	957,245	1,514,475	798,579	715,896
LOUISIANA	3,787,399	972,560	2,814,839	4,485,243	2,380,108	2,105,135
MAINE	1,648,342	430,691	1,217,651	1,952,058	1,041,410	910,648
MARYLAND	1,833,041	701,164	1,131,877	2,170,786	1,324,288	846,498
MASSACHUSETTS	7,259,700	1,218,647	6,041,053	8,597,328	4,079,403	4,517,925
MICHIGAN	6,195,129	1,249,357	4,945,772	7,336,608	3,637,811	3,698,797
MINNESOTA	2,207,762	564,679	1,643,083	2,614,552	1,385,739	1,228,813
MISSISSIPPI	1,895,402	529,825	1,365,577	2,244,658	1,223,383	1,021,275
MISSOURI	2,611,897	796,651	1,815,246	3,093,149	1,735,580	1,357,569
MONTANA	1,738,747	434,708	1,304,039	2,059,118	1,083,866	975,252
NEBRASKA	1,932,956	752,741	1,180,215	2,289,112	1,406,464	882,648
NEVADA	0	0	0	0	0	0
NEW HAMPSHIRE	2,347,297	945,258	$1,402,039	$2,779,798	1,731,254	$1,048,544
NEW JERSEY	1,778,508	28,157	1,750,351	2,106,206	797,170	1,309,036
NEW MEXICO	968,494	446,815	521,679	1,146,944	756,796	390,148
NEW YORK	5,373,525	1,024,731	4,348,794	6,363,619	3,111,284	3,252,335
NORTH CAROLINA	8,723,388	2,988,973	5,734,415	10,330,708	6,042,109	4,288,599

12-Apr-94

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1996 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

	FY 1994			FY 1995		
STATE	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE	SECTION 9 APPORTIONMENTS	SECTION 9 CAPITAL	OPERATING ASSISTANCE
NORTH DAKOTA	$1,694,947	$648,276	$1,046,671	$2,007,247	$1,224,473	$782,774
OHIO	4,660,308	862,822	3,697,486	5,518,991	2,753,751	2,765,240
OKLAHOMA	725,352	143,360	581,992	859,002	423,747	435,255
OREGON	3,782,702	1,636,306	2,146,396	4,479,681	2,874,455	1,605,226
PENNSYLVANIA	9,888,648	2,162,630	7,726,018	11,710,672	5,932,611	5,778,061
PUERTO RICO	8,135,045	4,146,548	4,988,487	10,818,204	7,087,455	3,730,749
RHODE ISLAND	581,470	210,529	370,941	688,608	411,192	277,416
SOUTH CAROLINA	2,462,447	836,513	1,525,934	2,916,163	1,774,862	1,141,201
SOUTH DAKOTA	1,222,880	434,454	788,226	1,447,965	858,474	589,491
TENNESSEE	1,882,309	555,070	1,337,239	2,240,876	1,240,894	1,000,082
TEXAS	17,521,105	5,943,391	11,577,714	20,749,442	12,090,812	8,658,630
UTAH	350,192	196,457	153,735	414,716	299,742	114,974
VERMONT	614,483	246,407	368,076	727,704	452,431	275,273
VIRGINIA	$4,078,806	1,050,894	$3,028,012	$4,830,462	2,565,901	$2,264,561
WASHINGTON	3,854,641	1,882,931	2,171,710	4,564,874	2,940,716	1,624,158
WEST VIRGINIA	2,962,488	234,276	2,728,212	3,508,338	1,467,889	2,040,349
WISCONSIN	8,109,936	2,183,183	5,926,753	9,604,227	5,171,784	4,432,443
WYOMING	849,030	154,405	694,625	1,005,487	485,877	519,490
SUBTOTAL	$214,577,566	$74,319,006	$140,258,560	$254,114,369	$149,219,138	$104,895,231
OVER 1,000,000 IN POPULATION	$1,638,538,951	$1,121,359,103	$517,179,848	$1,940,418,507	$1,553,634,987	$386,783,520
200,000-1,000,000 IN POPULATION	373,142,570	228,302,978	144,839,592	441,923,638	333,602,387	108,321,249
50,000-200,000 IN POPULATION	214,577,566	74,319,006	140,258,560	254,114,369	149,219,138	104,895,231
TOTALS	$2,226,259,087	$1,423,981,087	$802,278,000	$2,636,456,512	$2,036,456,512	$600,000,000
SECTION 23 SET-ASIDE	11,132,764	11,132,764	0	13,248,525	13,248,525	0
NATIONAL TOTALS	$2,237,391,851	$1,435,113,851	$802,278,000	$2,649,705,037	$2,049,705,037	$600,000,000

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US Department
of Transportation
**Federal Transit
Administration**

Administrator

400 Seventh St S W
Washington, D C 20590

BIOGRAPHICAL SUMMARY

Gordon J. Linton

Gordon J. Linton, President Clinton's choice to serve as Administrator of the Federal Transit Administration (FTA), comes to the position with a background rich in public policy and transportation experience.

Beginning in 1982, Mr. Linton was elected to six terms in the Pennsylvania House of Representatives. During his years of service, he served in a number of leadership positions, including Vice-chairman of the House Appropriations Committee and Chairman of the Transportation Committee's Subcommittee on Public Transportation. Mr. Linton was also a Chairman of the Pennsylvania Legislative Black Caucus.

As a legislator, he earned a reputation as both a transit advocate and an effective coalition builder. After forging a partnership between highway and transit interest groups and legislators, he sponsored and won passage of the state's first dedicated funding for mass transit, while simultaneously winning an increase in Pennsylvania's gas tax to meet expanding highway needs in the state.

Mr. Linton played a key role in devising a new funding formula for distributing the state's transit operating funds among its major urban, small urban, and rural transit systems.

Mr. Linton served as a member of the Board of Directors for the Southeastern Pennsylvania Tranpsortation Authority (SEPTA), the nation's fourth largest transit system. He has also been National Legislative Director of the Conference of Minority Transportation Officials and served as co-chair of Philadelphia Mayor Edward Rendell's Transition Transportation Group.

From 1980 to 1982, he was Eastern Regional Administrator for the Bureau of Public Assistance Audits in the Office of the Pennsylvania Auditor General.

Mr. Linton holds a master's degree in counseling psychology from Antioch University and a bachelor's degree in economics from Lincoln University.

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US Department
of Transportation
**Federal Transit
Administration**

The Deputy Administrator

400 Seventh St., S.W.
Washington, D.C. 20590

BIOGRAPHICAL SUMMARY

Grace Crunican

Deputy Administrator

In July of 1993, Grace Crunican was appointed Deputy Administrator of the Federal Transit Administration (FTA) by President Bill Clinton and Secretary of Transportation Federico Peña.

Ms. Crunican came to FTA after serving as Director of the Surface Transportation Policy Project (STPP) beginning in March, 1992. STPP is a coalition of organizations working to ensure that federal transportation policies promote critical national objectives in several areas: economic competitiveness and sustainability, the environment, energy conservation, and community enhancement.

For eight years prior to joining that, she was with the City of Portland, Oregon Transportation Department, where she served as Deputy Director. She was responsible for transportation finance, administration, and state and federal legislation.

Ms. Crunican previously worked in Washington, D.C., as a professional staff member on the U.S. Senate Appropriations Subcommittee on Transportation, and as a Presidential Management Intern at the Department of Transportation. From 1988 to 1990, she also served as the National President of the Women's Transportation Seminar.

A native of Beaverton, Ore., Ms. Crunican earned a Bachelor of Arts degree in Political Science and Criminal Justice from Gonzaga University in Spokane, Wash. In 1979, she received a Master of Adminstration from Willamette University in Salem, Ore.

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OPERATING SUBSIDIES

Mr. Carr. Thank you very much, Mr. Linton. We do look forward to working with you on a wide range of issues before transit communities of America.

The budget request for operating subsidies in 1995 declines to $600 million under your proposal which of course is a 25 percent decrease. Before getting into specific questions regarding the effect of the proposed reduction, it might be beneficial to recite some facts and figures.

According to the Federal Transit Administration, total transit subsidies have grown from $29 million in 1965 to $8 billion in 1990 from state and local sources alone.

In 1980, federal operating assistance comprised 16.8 percent of all transit revenue for operations. By 1982, Federal operating assistance had declined to 5.8 percent, a decrease of 65 percent. Information supplied by the Department of Transportation indicates that federal operating assistance as part of the total operating assistance averages 3.8 percent in 1994 for urbanized areas with a population of 1 million or more. The percentage declines to 2.8 percent under the administration's proposal.

However, those figures do not reveal that the 1994 percentages range from a low of 1.8 to a high of 16.9 percent for various cities. The same data for urbanized areas with populations of 200,000 to 1 million indicate figures of 11.3 in 1994, 8.5 in 1995 for the percentage of operating assistance of total operating assistance.

Again, the averages mask the fact that the range for the city size varies from 2.1 percent to 69.1 percent. Twenty-five of those cities receive 20 percent or more of their operating assistance from federal funding sources. For urban areas of 50,000 to 200,000 in population, the difference is even more striking. The overall average percentage of federal operating assistance to total operating costs is 30.3 percent.

The range by state varies from 4.2 percent to more than 80 percent. Nineteen states rely on federal operating assistance for at least one-third of the total operating cost for the cities with 50,000 to 200,000 population.

The composition of operating costs has changed in recent years with the passage of the ADA, Clean Air Act. ADA alone will result in additional operating costs of $700 to $900 million when fully implemented. And of course none of those costs are offset by any increases in federal assistance.

Mr. Linton, is the administration's proposed operating subsidy reduction driven by principle or by the budget? The Department's own justification materials at page 53 state that the reduction is important because it allows FTA to have a higher formula capital budget while still maintaining the budgetary outlay levels required by the budget resolutions.

Is this the real reason for the reduction?

Mr. Linton. Well, I think to answer your question, Mr. Chairman, it is clear that we have both forces that are operating, that we have to, as I said earlier, make tough decisions.

The American people have made it very clear that deficit reduction is an emphasis of theirs. We have to deal within the budget caps that we all are forced to negotiate within, so there is no way that I could say that the budget was not an element.

But we also need to look at the fact that capital funding has been the role that has been carved out for the federal government historically, and we continue to be the major provider of capital assistance to transit systems throughout this country.

Our level of operating assistance has averaged about 4 percent and that has been consistent over the last decade.

Looking at that, trying to see how we can make the best strategic investment within the budget caps that we had, it was clear to us that if in fact we began to put money in Section 9 where it is formula driven, that we provide the kind of equitable distribution and reliability of funds across the country that enables transit properties to make the kind of long-term strategic investments that hopefully will reduce operating costs.

We have already looked at some transit properties specifically where they have been able to generate reductions in maintenance and fuel costs by the acquisition and utilization of more recent fleets of buses and vans and other vehicles.

We expect those same types of cost reductions to occur as we provide this increase of money in Section 9 capital formula.

Mr. CARR. Under the administration's proposal, as I understand it, you are going to have all the transit agencies take the 25 percent reduction on an equal proportional basis. Is that right?

Mr. LINTON. Partially. The section 18 providers, the small rural systems, actually get an increase, as well as section 16. which benefits the elderly and disabled. But beyond that, yes, the 25 percent reduction is across the board.

I would like to note, however, that in systems between the size of 50,000 to 200,000, we have noted over the last several years that there are some operating assistance carryover funds from one year to another. That would relieve some of the readjustment that those systems would have to take on as a result of the reduction in operating assistance.

STUDIES OF OPERATING ASSISTANCE

Mr. CARR. I believe you were in the room when I asked Mr. Hill if they had done some studies about the nature and the complexity of operating assistance where they had not done any studies that correlated other than by size.

Have you done some studies that would give you a better handle on what we would all regard as, say, a reasonable operating subsidy and then some operating subsidies which may be filler for local things that we are not really all about as a federal government?

I guess I am somewhat put off by the notion that we just have to whack everybody 25 percent. It seems to me that there might be some properties which shouldn't be cut at all because they have a large local dedicated source of operating revenue structure, that they have gone to bat, they have bellied up to the bar, they have put their nickel down and they are doing the best they can, whereas maybe some cities could do more in terms of local tax effort, and they are not, and they are sort of riding on the subsidy as something that they—that really helps them avoid some tough local political decisions, and as between the two communities, I mean, my personal preference would be that we hold harmless those communities that are doing a monumental task to do everything that they can to support their own transit systems and create less dependence, whereas some communities, which may be a little lazier about the dependency issue, maybe they ought to have a little more than 25 percent taken. Is there another way other than just across the board to do this?

Mr. LINTON. Let me say, Mr. Chairman, that that type of detailed analysis has not taken place to my knowledge. I would suspect that those are issues that we need to begin to examine.

The issue of operating assistance is one that we are going to continue to be facing over the remaining years, and I think we are going to have to look at it in a policy perspective and begin to get additional data to begin to find out what, in fact, should be the federal role in the long term beyond the 1995 budget.

We have to begin to look at 1996 and beyond. I think the Secretary has pledged my cooperation to work with some of the other stakeholders, the American Public Transit Association (APTA) and mayors and cities as we begin to look at those specifics and variables that you made reference to. But to date that hasn't happened.

PERFORMANCE BASED FORMULA CRITERIA

Mr. CARR. Well, I think the committee would be of a mind to try to help you do that, because we are being asked to use federal dollars much more wisely, and then we don't have the tools to make wise decisions, and so we end up doing meat ax approaches to things that lack the precision that I know we can muster if we will put our minds to it.

I frankly would love to have a system where perhaps FTA could devise such a system, where transit agencies would, in effect, compete one with another on a performance grid, a performance basis, so that when we do get into decisions like this, whether it is investment for capital or operating subsidy, we can look at the transit properties across America and find out which transit agency does have the best on time performance and which transit agency is managing to do a better job with maintenance, what transit agencies are doing a better job with regard to local tax effort, and the measures are out there.

In fact, I suppose we could worry that we would get so much data we wouldn't be able to handle it all, but we are dealing with data in aviation and in highways to a greater and greater degree, the tools are there to help us evaluate things.

I would hope that under your leadership, with the help of the Bureau of Transportation statistics, that methodologies could be developed so that transit agencies might compete with one another on a fairly level playing field supplied by the federal government of statistics so that it might be that Chicago might want to put forth the notion to economic leaders around the country that it has the top rating of the FTA in terms of overall parameters, measurements on transit in America, and some community that is lagging and not doing as well might have an incentive to go to their business community, go to their local elected leaders and say, look, we are continually at the bottom of the list here and that is going to affect our ability to get business here and to get economic development under way.

Maybe we better step up to some tough economic decisions. Maybe we better do some things better than we have done them in the past so when we put out our economic development brochure, we can say we are as good as community X, Y, or Z or we have got the top rating of FTA.

We have seen it in this silly little thing that I was once opposed to, but I guess I have kind of come around, the on time performance of the airlines, for example. It provides another avenue for competition and it gives people some incentive to try to reach beyond what they have been doing in the past because I know a lot of these programs to communities are more than just transportation programs. They get involved with prestige. They get involved with jobs. They get involved with economic development. They get involved with a whole host of other things, and I would think that our emphasis here at the federal level is supplying good, reliable, dependable transportation and let these communities set up and finance the other ancillary strategies that they may be pursuing regarding transit.

Well, after that little sermon, I have a lot of questions but we will—I will come back. I would like to give my friends on the Committee an opportunity.

Mr. Foglietta.

OPERATING ASSISTANCE REDUCTION

Mr. FOGLIETTA. Thank you, Mr. Chairman.

I want to welcome my friend and fellow Philadelphian, Gordon Linton, to the Committee today. I was very interested in your preliminary remarks in which you talk about transportation being people and community oriented.

I feel so strongly the same way that I wanted to make sure that my colleagues on this Committee didn't think that we collaborated on your opening statement.

It is really great to finally have an advocate of transit at the head of FTA. I believe we are already seeing a difference since you have been there. I look forward to working with you. I am sure the members of this Committee do in the future.

No hearing on Capitol Hill this year would be complete without you being questioned on the operating assistance cut which is proposed in the budget, but the number of questions I believe that you are asked reflects just how devastating that cut would be to transit properties, big and small, across the country.

I support a large increase in the transit capital and, as you have pointed out, this increase will provide transit systems with much needed capital funding to upgrade and expand transit infrastructure, however dramatically increased compliance costs with—associated with Federal mandates are really absorbing an ever-increasing share of the operating budgets of the transit systems.

How do you suggest that transit systems, especially the older ones like we have in cities like Philadelphia, cope with the double burden of extreme capital needs as well as the cost of compliance with ADA and clean air mandates, for instance?

Mr. LINTON. Thank you, Congressman, for inviting me and welcoming me as a Philadelphian. I greatly appreciate that.

Let me say that you know and Members of the Committee may not know that I served on the board of the very transit property that you are making reference to, and when I sat in that seat, I had to make some very tough decisions, reducing an operating budget from $695 million in one year to $600 million.

So I realize that when you restructure budgets and you make changes from operating to capital, it will require these transit properties, particularly those like SEPTA in Philadelphia, to make those tough decisions.

We hope that we are providing the increase in capital that will allow—maybe not in the short term, but in the long term, properties such as SEPTA to be able to make the strategic investments so that they can reduce their operating costs.

It is going to require, however, in the short term, that transit properties make the same tough decisions that you and I are being forced to make today in trying to measure how we get the biggest investment from the revenues that we have available.

That is going to require transit properties to restructure their budgets. Some of them will be able to in fact look at some of their other partners, at state and local levels and say, well, we are getting larger capital assistance from the federal government, maybe we can substitute additional operating from the others in exchange for that.

Those types of decisions, which are the same ones that I had to make when I served on that board, are the kind of decisions that the transit properties are going to have to make as a result of this proposal. Is it going to be easy? No. Are our decisions that we are making today easy? No. However, we were given this responsibility—I, when I accepted this appointment, and you as the great Representative of the district that you represent, the responsibility to make those tough decisions and make sure that we meet the demands that the American public has placed upon us.

So those tough decisions are the ones that go with the territory in essence, and they are ones that are difficult to make, I agree with that. But there are ways which I think they could possibly be made.

RAIL MODERNIZATION PROGRAM

Mr. FOGLIETTA. I thank you. Last year, Secretary Peña and this Committee recognized the need to provide additional capital assistance for older transit systems by providing historic levels of funding for the rail modernization program. What are your thoughts on the investment issues facing older transit systems and will we see a continued commitment from the administration for these older properties?

Mr. LINTON. Congressman, you will see that our proposed budget for 1995 basically maintains the rail mod numbers from the 1994 budget, but in addition, you will note that the major increase in section 9 formula very often is used by transit properties to enhance their rail modification.

So they have the consistency that is provided from 1994 to 1995 as well as the major increase that is available as a result of section

9. I think that bodes well for helping those older systems to continue to build and do the kind of restructuring of their facilities that they are doing now.

LOS ANGELES RIDERSHIP

Mr. Foglietta. The Los Angeles earthquake this year had one positive result, if you may say so. The people in Los Angeles who had been firmly committed to travel by automobile were forced out of their automobiles into the public transit system.

Can you tell the Committee about changes in ridership levels in Los Angeles and what is being done there to retain those riders? For years transit, as you well know, has been the stepchild to highway funding, and has the LA experience had any impact on how the administration views transit investments, and do you think it might work to level the playing field between highways and transits?

Mr. Linton. Let me just say and I have used this quote with my staff quite a bit, and I think it will provide some levity to our hearings this morning, I have often said that I believe those in Los Angeles when they are born, that the doctor pats them on their bottom and also gives them some car keys in their hand, that there is indeed a culture there that creates a dependency on the automobile.

As you may know, I was in the Los Angeles area within 48 hours of the earthquake and was appalled to see that people, even with the large delays with the highways being disrupted, that people were willing to wait in line in their cars for four hours to get to work in congestion, even though there was a viable transit system in place, that their fundamental reliance on the automobile was that strong that they were willing to do that.

But we have seen some changing of behavior as a result of the earthquake. The Metro link rail system that serves a great portion of that city had a tremendous increase in ridership. One line, specifically the Santa Clarita line, where the daily patronage was about 1,000 passengers a day, that line went up to about 13,000, 14,000 passengers a day, and we have now seen it to be stabilized in the area of about 8,000 passengers a day. That is a tremendous increase.

We are also seeing put in place some transit management demand systems that the city is beginning to use, and a lot of reliance on shared ride programs. At the time there was also an emphasis on HOV lanes, all of which was trying to make mobility much more available for those in Los Angeles as a result of the quake.

We are hoping, with our support for the Metropolitan Transportation Authority (MTA) and others in the region, that we will be able to fortify that reliance on transit. We are also conducting transit studies trying to see what it is that will cause people to stay on the Metrolink after all of the recovery is in place.

We noted in the San Francisco Bay area, that after the Loma Prieta earthquake, there was a 20 percent maintenance of riders, people who were diverted to the Bay Area Rapid Transit system (BART) as a result of that quake. We are hoping that we can hold onto some of the ridership that we have now gained in Los Angeles.

LIVABLE COMMUNITIES

Mr. FOGLIETTA. I thank you. One other thing, that is that I want to compliment you on your livable communities initiative. You and I have had some discussion on this positive approach and you know it embraces a philosophy with which I completely agree. We can certainly use, I believe, transportation investments to strategically leverage community and economic development.

Can you share with me and Members of this Committee your vision of the type of project that might qualify for funding under this program and how will projects complete and what criteria will be used to judge them?

Mr. LINTON. Let me just say that in our view, we need to change the way that we rebuild America. Over the last several decades, we have built a country that has created dependency on automobiles through our economic development policies, through our land use policies. It is something that we have supported with Federal, State and local resources. I think a situation like the earthquake in Los Angeles illustrates how the sprawl that has been created and the reliance on highways has created a dependency on the automobile somewhat to the detriment of livable communities.

This is a proposal that, if we had discretionary money currently as we have had this past fiscal year, we could follow up on that without any change in statute. So even though the proposal is listed in our budget as a separate item, that is just to give programmatic emphasis. We believe we can do it without any changes in the legislation.

What we are trying to do with this proposal is highlight the use of land use planning around transit properties, and begin to use joint development to encourage people to use transit.

One of the things that we have looked at is that there is a reluctance of, for instance, single parents, mothers who may have to go to a day care center, to use a transit facility if that daycare center is located so far from the transit facility that they have to make multiple exchanges and multiple stops.

You begin to reduce the reliance on automobiles when you put such facilities in close proximity to the transit facilities. In that regard, you begin to foster an increasing ridership. We also want to look at issues such as pedestrian walkways that will encourage people to use bicycles and walk in proximity to places where they live.

We have seen some examples of that right here in the Washington metropolitan area. The Ballston station and others on the Metro system have encouraged high density housing, condominiums, retail establishments, others within close proximity of the transit station.

I use a station myself as I reside in the Washington area, the Rosslyn station, where I do not have to go anywhere else to go shopping. There is a supermarket that is close by. So I reduce the number of trips that I have to take, but I also continue to have dependence on transit because all the amenities are there close to those stations. Those are the kinds of projects that we hope to encourage through our livable communities proposal.

Mr. FOGLIETTA. It is an admirable goal and I wish you well with it, and pledge to you my support because I believe very strongly in it, and thank you so very much.

Mr. LINTON. Thank you.

Mr. CARR. Mr. Wolf.

Mr. WOLF. Thank you, Mr. Chairman.

Mr. Linton, I want to welcome you, especially as a former Philadelphian. Mr. Foglietta was the councilman for my family back in Philadelphia, and of course I used to take the 36 into work at the Curtis Publishing Company, and went to John Bartstrom High School, so I appreciate having a Philadelphian and now you have come to Virginia, followed in my path.

TRANSIT SAFETY

Things are not nearly as good here as they are in Mr. Foglietta's area. A couple issues that you raised in your testimony and then a couple that I have.

What about the safety of the system? There is a growing concern, I know in Philadelphia, the safety in the PTC or SEPTA now as you call it, there is a concern with the crime. That has become a growing concern in this area. I am sure it is around the country.

From people that I know in New York City, there are certain stops they are very worried about taking. Do you want to comment? Do you have an office or do you have at FTA dealing with the safety issue that you can exchange what is being done in certain places that is working well and——

Mr. LINTON. Let me just say that as I noted in my opening statement, we are going through and have gone through a strategic planning effort with our agency, and in that effort, we have come up with eight vision strategies.

Number one vision strategy that my staff and I have come up with addresses the area of safety and security. That is an area that we will be putting increasing emphasis on. When you do customer surveys around transit properties and you ask those who use the systems across the country what are their concerns, what are the issues that may prevent you or discourage you from using transit, one of the top issues that we have noted in a number of those surveys is security, personal security.

Unlike some modes, there is not a large degree of concern regarding accidents. However, when you begin to talk to people around the country, patrons who are using the system or those who choose not to use the system, safety, personal security, becomes a major issue.

We hope to have a regional conference highlighting experts from around the country to begin to look at the kind of safety techniques that we can employ at our transit systems to make sure that they are more secure for our users as well as those who work there.

We are also looking to utilize new technology, both information and communication technologies that provide a secure presence in those facilities. We want to encourage that. We are using the Advanced Research Projects Agency (ARPA) projects as well as others in our own research efforts to try to maximize use of the new technology.

We want to make sure that our systems begin to put in place some safety management and security planning techniques and also have drills to prepare for incidents and accidents that may occur. We have a series of action objectives that we would like to implement over the next year or two in working towards improving safety on transit properties.

BUYOUT VS. INCREASED STAFF

Mr. WOLF. That is good. I haven't heard a lot of talk from FTA about that. It is good you are looking at it because this is a major issue. You talk to people in New York City. That is one of the reasons they don't like to ride the subway at certain hours. It is the same way in Philadelphia. It is the same way in Washington, D.C., certain areas, certain stations, so I think that is very, very good.

And I would like to personally be kept informed, perhaps the committee too, to be kept informed of what you are doing. Because we can invest all this money in the capital cost and develop systems that people are afraid to ride.

In your testimony on page 6, you say at the bottom, to do these things, Mr. Chairman, we need additional staff. On page 7 then you talk about Vice President Gore's National Performance Review, which I personally have serious questions about, having been with the government for a number of years. I sense—are you going to be firing people or RIFing people or "buying out" people and then hiring them back again? How do you direct that? And where do you target?

Because much of what Gore is trying to do is going after the mid-level, and you can strike mid-level and put middle age, and there is a direct result And as I talk, there has never been a more unhappy time that federal employees are experiencing than they are now.

An administration that they thought would be overly friendly, they have found has not been particularly friendly. Can you tell me what you plan on doing with regard to page 6 versus page 7, and how you plan on fitting that out? Briefly and then if it has to be in more detail, I——

Mr. LINTON. Sure. We would be glad to provide you and Members of the Committee with additional information on the details of that, but let me just start by saying that we were one of the agencies that were very happy to have the buyout provision that the Members of Congress supported.

[The information follows:]

No, we are not going to fire or RIF employees. FTA is using the voluntary separation incentive program to reduce the number of senior level managers (SES, GS-14/15) positions in headquarters staffs in compliance with the Office of Management and Budget Bulletin 93–08. Our plan is to use buyouts and other attrition to reduce headquarters staffing by 8 FTE and to increase regional staffing by 28 FTE. We expect the 28 new staff to be hired at significantly lower grades than the 8 positions being reduced in headquarters.

Mr. WOLF. Could you show us a list of the people that took advantage of the buyout, and were they critical people to the agency's mission?

Because I hear all this talk and some of the people that I am seeing taking advantage of the buyout are some of the more critical people in the agencies, and people that I personally know have taken advantage are really people that I am really not so sure that you wanted to lose.

So could you elaborate, and particularly on the record, I would like to see by category of who did buy out and—I don't need their names, but what they actually did and how you plan on replacing them. But now go ahead.

Mr. LINTON. Mr. Congressman, I don't think I want to give you the names if you think they are insignificant.

Mr. WOLF. No. Let me take issue with you. I did not say that and I want the record—no, I want the record to show I did not say that. In fact, as the record should say just the opposite.

My sense is that—and now you got my dander up. My sense is that what the Clinton administration is saying is that many of these people are insignificant and therefore we can get rid of them. I question that they are.

I think they are very significant and the people that I know are people that I am not so sure that you are doing such a great job getting rid of.

Mr. LINTON. Let me apologize. That was not meant to understate anything that you had said, and I apologize for that.

Mr. WOLF. There is no need, but I have some deep, deep concerns about it.

Mr. LINTON. Let me respond to your question. We have targeted primarily the Senior Executive Service people (SESs) and General Manager/General Schedule—15's (GM/GS–15's) in our agency. In the buyout proposal or the proposal for reduction of staff, the targets that we were asked to reach was reduction in those upper levels. So we have opened our buyouts to staff within those areas, the SESs and the GM/GS–15's.

There are some areas within our agency where we can afford to lose some staff. So I think to that degree, we have an opportunity. On the other hand, as you stated earlier, on page 6 we made reference to the need for increased staffing. My deputy and I have met very long and hard on this from the very moment that we came to this agency. It is clear to us that the new responsibilities under ISTEA will require us to both restructure our agency so that we can better comply with them, and also to make sure that we have staff at our regions.

So what we have tried to do as a result of our strategic plan and in compliance with the FTE reduction that is required, we have put in place a plan, and it is represented in this budget, to increase our FTEs by 20 and to allocate those FTEs to our regions so that we can be involved with the planning that is going on at the Metropolitan Planning Organizations (MPO's), so that we can work more closely in terms of oversight for our programs. Thus we have staff that are empowered in the field so they are closer to our customers and to the problems that we see arising there.

We think that by having the buyout we will be able to avoid any Reduction in Force (RIF). We will be able to strategically look at our agency in the areas of GM/GS–15's and SESs in areas we think we can afford to lose some staff.

Mr. WOLF. Okay, well I appreciate that, and I can't second guess you because you are operating the agency. I think you should be a little sensitive about who goes and if people are being sort of forced out.

There are many people that are leaving now because they see that they are really not wanted, and I am seeing a lot of people that I think are really the critical people, and frankly, I think overall, the SES people have done a very good job in the government agencies, and I am really concerned that we are pushing these people out solely because they are at a salary level whereby you get the bigger bang for the buck and they may be the very people that are critical in operating the agency.

EARMARKING

Let me ask you two other questions. I have a lot of others I have I will get on a second round, but I agree with you, and I share, and the Chairman has been, I think, very, very good on this, with regard to not earmarking as much.

I personally would even prefer that we not earmark at all. If there were a vote in the Committee not to earmark, because I don't think that we quite have the expertise that you have or your technical people have. If no projects were earmarked and the funding stayed constant, would you be putting money into those projects that were moving ahead? Would you continue to fund those that have moved, or would you drop them? How would you work that?

Mr. LINTON. Well, I had a recent experience in the 1994 budget that the Committee passed. In that budget, we had approximately $74 million in section 3 bus, for example, and in making the decisions to allocate those funds, we looked at some of the language in ISTEA that asked us to look at compliance with ADA, Clean Air Act, those kind of issues.

We also tried to geographically distribute those dollars and we had rankings that were provided through our regions with our regional administrators looking at the properties and trying to assess the needs. Those are the bases on which we made those decisions and we were able to, I think, obligate 29 projects with the $74 million.

Mr. WOLF. That made a lot of sense. So you would be inclined, if—the fewer earmarks—I don't know the Committee would go to no earmarks.

So you are basically telling us that the more money that is not earmarked, the more inclined you would be to put money on the ongoing projects? You would use your own judgment of course, but——

Mr. LINTON. Yes, and the judgment is based upon sound information. We tried to focus on projects that were ready to go and projects that had been ranked throughout our regions based on our regional administrators working closely with those properties in their regions.

We assessed those rankings and verified those rankings and also compliance with ADA, clean air, and we use all of those——

Mr. WOLF. When is the last time that there were no earmarks in it at all?

Mr. LINTON. There was no significant bus earmarking before fiscal year 1992.

FUEL CELL BUS PROJECT

Mr. WOLF. One last question. Well, two really fast ones. One is more detail. I got a letter today. You don't have to answer this for the record, but I would like to get it in the record and if you have a comment, fine. Otherwise you can give it back to me. I received a letter bringing to my attention a matter that the writer thought may be of interest in the coming DOT appropriations. The Federal Transit Administration and DOD has funded a fuel cell engine-powered bus project since 1987, $30 million has been spent to date and a request for $30 million or more is on the way. So far one prototype bus has been produced according to this letter.

> Guess who got to make the fuel cell engine for it after all? Fuji Electric of Japan. Fuji has been involved in the beginning and became the best beneficiary of this project. Who can now make a fuel cell bus? The Japanese.

Could you look at this? Again, it didn't happen on your watch. It is not something you necessarily have to be aware about in the past, but certainly in the future, can you tell me if Fuji is the only one with regard to that.

And I have been concerned about technology transfer leaving, money that goes in IVHS and others, whereby it goes abroad and if we lose that similar to losing television technology, the VCR and others, we will be making these components and making things abroad, and now it is very difficult as you know in the transit business—it used to be Budd. Budd was probably in your district, wasn't it?

Mr. LINTON. It wasn't in my district, but it was a very strong company in the city of Philadelphia.

Mr. WOLF. My uncle used to work for Budd. A lot of my family. Now that plant is gone. Is there anything even there where the Budd plant was?

Mr. LINTON. I was looking for Congressman Foglietta, that is in his district.

Mr. WOLF. You can see my concern. I want to make sure that we do these things for American jobs, whether it be in Detroit or Philadelphia, probably wouldn't be in my area, but just to make sure that if we are putting American taxpayer dollars in it, the job go to Americans.

Mr. LINTON. I could have Larry Schulman respond to that.

Mr. WOLF. Sure.

Mr. SCHULMAN. Unfortunately, in the project that you are referring to, Fuji did end up as being the producer of the three fuel cells for the three buses. That is the earlier project.

It didn't start out that way. The firm that was selected was a firm called Englehardt. They went out of the fuel cell business in the middle of the program, and it turned out that Fuji was the one that purchased their assets and continued in the program.

There is now a follow-on program which is specifically dealing with a domestic manufacturer in the United States, and they are the company that is developing the production model for the U.S. production model bus.

Mr. WOLF. So is Fuji out?

Mr. SCHULMAN. Fuji will be out when the first project is complete.

Mr. **Wolf**. Don't they have a problem with Buy American?

Mr. **Schulman**. Not under the demonstration program. As I said, it was not the way that the program began. It is the way——

Mr. **Wolf**. So Fuji, they get this technology now. So maybe we will be driving—we will see buses in Japan based on taxpayer funded money. Is there a chance of that?

Mr. **Schulman**. I would imagine that there could be a chance, but it ended up more accidentally than by purpose.

TAXPAYER FUNDED TECHNOLOGY BENEFITING FOREIGN FIRMS

Mr. **Wolf**. But a lot of times these Japanese companies will come in and buy a company out for that very, very thing, to get the research and the technology, and I think this industrial technology is a very, very difficult problem. We raised this last year before FAA. FTA did not get involved.

I mean, the French, DDSE, secret police, had targeted a whole series, and I will send you a list, of high-tech technology, much of it funded by this committee, and their purpose was to get the GPS and many of these others, and we are transferring technology, and I can assure you, the person in north Philadelphia or south Philadelphia, or Shenandoah County or Fairfax County, really doesn't mind Japan developing, but they don't want to see American tax dollars go in, and particularly then to lose this technology where somebody from Michigan or Texas or Philadelphia could operate it. If you could look at that and be sensitive. I just don't want any Japanese company to be involved in this with American taxpayer dollars.

Mr. **Schulman**. Mr. Congressman, we certainly would agree with you on that, but I just would like to make one last point. The domestic company, which is now developing the new bus, the 40 foot bus which we are going to be demonstrating for production use in the United States, is using a good deal of that research. So there will be a significant beneficiary in the United States, we would hope, but we do recognize your concern.

LABOR COST COMPARISON

Mr. **Wolf**. The last question is, and this is too long to take the Committee's time up. If you could generally think about it, maybe make a comment. I have been a strong supporter, and am, of mass transit. I wasn't joking. My mom didn't even drive. My mom took—my mom made sandwiches in the Philadelphia-Baltimore Stock Exchange downtown. Took the trolley car every day. I took the trolley car every day. When I graduated, I worked for a couple years before I went to college. I took the 36 in every day. Everybody in my family did. I believe in it, strong, strong supporter.

Also the Metro system here in Washington. I am a little bit concerned though about the operating cost and the wage rates that I am beginning to see, and I am not anti-union. I come from a blue collar family too. My dad helped start the Fraternal Order of Police in Philadelphia.

But I look at the Washington wage rates for instance, and like the Washington wage rate was $17.54 and then in this year—5/95, next year, they get a 70 cent raise. They are going to be number two or three in the country.

I look at Philadelphia, $14, and I look at Houston—I didn't look at Houston's. I can. I look at Houston, $23. No, $13. But of course—Houston, they are $13, and Baltimore is $15, and I just wanted to know if you have any thoughts.

There is going to be an effort to extend Metro, and I am not against it at the right time. Do you have any thoughts about how Metro could get costs down? Do you think it merits opening the compact up to look at binding arbitration? Because if you get a single parent that lives in Oakton and has to pay $2.50 to park and $2.90 to come in and $2.90 to go back out, and then have the child at a day care center, I think we are beginning to reach a point where people say I am just not going to ride it anymore. I am really worried that Metro and some of the other systems may be hitting that point, and I am more concerned about Metro because although there are no Metro stops in my new congressional district, I want to continue to support it. Do you have any thoughts about what we can do with regard to that?

Mr. LINTON. Mr. Chairman, Members of the committee and Mr. Wolf, let me just say that as a rule, we in the federal government don't get involved in those kinds of local decisions that transit properties make.

In fact, there is an element of our statute that actually prohibits us from making those kinds of interventions. However, you know, I can say that there is no question that in order to maintain ridership, that one has to have competitive costs, and that one has to do all that one can do to keep those costs competitive. I can say it not necessarily in defense of Metro——

Mr. WOLF. It is a well-run system. I am not criticizing. It is a very well run——

Mr. LINTON. That is also a system right now that has about 70 percent fare box recovery from their rail system, which is pretty phenomenal around the country.

Mr. WOLF. That is true, but what you are finding, sir, is that the bus system now, in Fairfax County, they have just opted out of the bus system, and what I am afraid of is as localities opt out here, then they put pressure in Montgomery County. Pretty soon you are going to have a Metro rail system without buses and——

Mr. LINTON. And I am aware of that issue of some of the local communities trying to decide on whether they are going to break off from the Metro system.

RIDERSHIP COSTS

Mr. WOLF. I don't want to put you on the spot, and I was not aware of that. If maybe sometime your experts could come by my office, and we won't take the Committee's time, just talk about, without you getting directly involved, what can be done as a friend of Metro, not coming in as a critic.

Mr. LINTON. Sure.

Mr. WOLF. But what can we do to make sure we make the rider cost—Mr. Downey said that the rail system in New York, $1.50, that is really doable. I think the more people we can get to ride on mass transit, the better.

But there has got to be some sort of formula your people have when you reach a certain point, there is a diminishing return and the ridership collapses. When that happens, it is going to be bad for the region and bad for other places too.

Again, I welcome you before the Committee. Appreciate it very, very much that President Clinton had the ability to appoint somebody from Philadelphia.

Mr. CARR. Thank you, Mr. Wolf. We have been called to a meeting at noon so we are going to take a recess right now. We will be back at two o'clock. We will take a recess until two o'clock.

Thank you.

[Recess.]

DETROIT TRANSIT

Mr. CARR. We will resume our hearing and by way of advising you, I guess our meeting, we won't go beyond 4:30 today. We have another meeting that we have to go to, so that is by way of everyone being able to plan what is going to happen today.

Let me ask you a few questions about my own home area. I hope you have had an opportunity to—if you haven't had an opportunity, we would like to have you up to southeast Michigan to let you know of what some of the transit plans are up there.

As you know, southeast Michigan is one of the few areas of the country that doesn't have a consolidated system. We have a Detroit department of transportation and then we have Southeast Michigan Area Rapid Transit, or regional transit I guess we call it.

Now, over the years, there has been a move to try to consolidate those two systems and with our new mayor, Mayor Dennis Archer and with the relatively newly elected executive, Al Brooks Patterson and with our county executive, Ed McNamara, and the County Board Chairman in Macomb County, they have been moving to consolidate the system for the first time, and it will take maybe a few years to get that done as each of the entities have various competing interests that they are trying to protect.

But right now they are making some very good progress toward an agreement to consolidate some services on some lines, and I have already spoken to the Secretary, and I hope we can get your agreement that if we get some paper coming from southeast Michigan in a timely fashion for section 3 application, it will be fairly considered. One of the barriers to consolidation is that the fare boxes, for example, on the buses for Detroit are not the same as the fare boxes for the suburban system.

There are a variety of differences in the maintenance base of each system and there are some minor—they are not major, but they are significant capital costs. If they are to operate one system's bus lines to reduce duplicative service, it seems they are going to have to be able to use each other other's farecards and the like.

So what I have been told from people in the region is that they are going to put together a proposal to FTA, and it would be a modest proposal to get some money for the capital expenditures necessary to merge these two systems and finally get southeast Michigan on a road to transit improvement that most other areas of the country have been on for better than a decade.

So I wonder if you have had any communications from them or if you have any comments on my observations. Not really a question I guess. It is just by way of saying that there is something out there that is happening after decades of delay that might be important and it might be important for FTA to encourage those movements with some modest capital funds to accomplish the consolidation.

Mr. LINTON. Mr. Chairman, let me respond, if you will. I have read with some interest some of the comments of the new general manager of the Detroit system who I believe spent some time with the Suburban Mobility Authority for Regional Transportation (SMART) system before coming there——

Mr. CARR. Right.

Mr. LINTON. And expressing his interest in the consolidation. I think it would bode well for federal interests if there was a regional system there, and you get some operating efficiencies when you are able to do that.

I think we would look very favorably on trying to assist them in that consolidation. We would be looking favorably towards an application where we could provide some resources, providing those resources are there to provide, because I think there are a lot of operating efficiencies there that can occur as a result of that consolidation.

Mr. CARR. Well, I thank you for that response. I will look forward to working with you in the next few months. I have already discussed these matters with the affected people in the region. One of my goals for the entire region of southeast Michigan is that we modernize our transit system and bring it up to the standards that every other community in America has achieved, that we work cooperatively with local officials to try to make sure that we have at least as good a transit system as other areas of the country, and when we have done our job and the people at the Federal level can have some confidence in the performance of the system in southeast Michigan, maybe we can even move on to some of the larger projects which people in other parts of the country have enjoyed and which Michigan has largely been left out because of its own—because it has been mired in its own political difficulty.

But I think that day is over and the support and cooperation of the FTA in helping us move to this new phase would be greatly appreciated.

ATLANTA OLYMPICS

There is one other matter that I wanted to raise with you and that had to do with Atlanta. I see my good friend, Mr. Price, is here. I have been briefed by our former colleague, Lindsey Thomas, who now is the director of federal and state government relations for the Atlanta Committee for the Olympic Games. As the host of the Olympics, Atlanta will have an extraordinary need for a very short period of time for a very large addition to its bus capacity. We talked about this a little bit last year in trying to encourage some kind of an efficiency between buses that are either already acquired by existing agencies or may soon to be acquired by existing agencies to be used in Atlanta for a brief period of time, and to try to figure out a reasonable program where Atlanta's bus fleet could be temporarily augmented in a way that would lessen the cost to all concerned.

They have obviously been working with you. They have told me that they have worked with you and that you are either near or at an agreement on a proposal. Perhaps you could speak to that for a minute.

Mr. LINTON. Thank you, Mr. Chairman. We have been working, as has been indicated, with the Atlanta Committee for the Olympic Games (ACOG) and all those in Atlanta to try to make sure that their needs for the 1996 Olympics can be met.

In that regard, starting in January, we met with some of the 20 largest transit properties around the country trying to, one, explain to them what the needs were in Atlanta and, two, try to solicit their support in helping us to get 2,000 buses to the Olympics in Atlanta for 1996.

We have also met with the associate members of APTA, i.e., the bus manufacturers and suppliers, to see if we can try to expedite the manufacturing of buses that will be taking place over the next year or two in order to have them there in Atlanta for the 1996 Olympics. More recently we have met with the major unions to solicit their support. We are trying to make sure that we touch base with as many people as possible to make sure we have a successful Olympics in 1996.

We think that we have a good process in place to solicit support in encouraging all of the transit properties around the country to help us towards the 2,000 buses. Since the meetings, we have had discussions as well as commitments from transit properties to send buses from their properties to Atlanta for 1996.

We have also had some discussions with ACOG about insurance, transprotation costs, and maintenance costs once the vehicles are in Atlanta. We are planning to work with OMB to see if we can, in our fiscal year 1996 budget submission, provide some allocations to support those vehicles once they arrive there.

We will continue to work with the Atlanta Olympic Committee to that end and with you and Members of your Committee as well to see if we can make sure that this is a successful event.

We think it is a real opportunity to showcase what we can do in transit in this country. We think the opportunity to have two-thirds of the world viewing the activities in Atlanta is a real chance for all of us to show what we can do in a short sphere of space in moving a tremendous amount of people in a very efficient way. We are taking it as a challenge and an opportunity to do the best for the country in Atlanta in 1996.

Mr. CARR. Are there any outstanding issues that have to be resolved that you might want to highlight that we pay attention to?

Mr. LINTON. We have talked with many of the general managers and transit properties, and they have concerns about insurance for their vehicles once they are delivered.

We are still trying to work out agreements for alternative fuel vehicles to make sure that we have in place the alternative fueling stations that will be necessary, so we are working with a number of companies around the area to provide support for alternative fuels. We also have worked with a group out of Chattanooga, Tennessee to make sure that we have some electric buses that will be there as well. So I think some of those issues are being resolved.

There are other issues regarding transportation of the vehicles to Atlanta, and what will happen with the extension of the warranties for the buses for the period that they are there. I think the Olympic Committee is working on some of these problems, and we will have a solution to those concerns of the transit properties once we get the final applications in the hands of the Committee for delivery of the buses.

Mr. CARR. I wonder, I would like to clarify a little bit. I think you indicated 1996 allocations for this?

Mr. LINTON. For the 1996 budget. I checked with the Atlanta Olympic Committee, and they pretty much indicated to me that the fiscal year 1996 budget process would be able to accommodate their needs.

If we were able to get the budget passed in I guess the latter part of 1995, between 1995 and the beginning of 1996, that would give them the dollars they would need to handle the maintenance, the insurance, and the cost of getting the buses there.

Mr. CARR. Well, we might want to have some further discussions with you. Our information is that that might be a little too late. Has that been raised to you at all?

Mr. LINTON. No, it hasn't been.

Mr. CARR. Let's have a further discussion at some point.

Mr. LINTON. Sure.

Mr. CARR. To have maximum impact, we may need to have some allocation in 1995. That was our concern. Anyway, I know that Mr. Price has an interest in this area. Mr. Price, would you like to ask a question or two?

Mr. PRICE. I want to commend you for working with the Olympic Committee and encouraging cooperation from transit systems around the Country.

That is one of the most encouraging aspects the way the local transit systems have prove flexible and worked with Atlanta to meet this extraordinary short-term need. It is not an opportunity that comes around too often. Enhancing the transportation in Atlanta will reflect well on our entire transportation system, our entire Country. We look forward to working with you on that.

Mr. LINTON. Thank you, Congressman Price. I think that is exactly the way we viewed it, and the transit properties that we have approached have viewed it the same way.

It is their opportunity to contribute to the Atlanta event, not just because it is in Atlanta, but because it is a national event. It is our Olympics. It is our opportunity to showcase what we can do in America, and I think they have responded because of that.

RIDERSHIP ESTIMATES

Mr. PRICE [presiding]. Good. I will preside until the Chairman returns.

I would like to raise a matter the GAO discussed this morning, on the efforts underway to improve analytical capacity at the FTA.

The GAO referred to the 1990 report, Urban Rail Transit Projects, Forecasts Versus Actual Ridership and costs. In that report, the FTA track record was not too impressive on ridership and cost estimates, the information on which some of these allocations were based.

The estimates' reasonableness have a lot to do with the reliability of the processes local decision makers use to develop and choose among alternative transit projects. They also have a lot to do with our funding decisions here.

How has the FTA addressed the recommendations in this report, whether you have seen improvement, whether your ridership and cost estimates have improved since that 1990 report and specific examples you could give us of this. I raised with the GAO how this attempt to improve our analytical capacity, how that fit with the new planning process ISTEA established which of course involves a lot more players, a lot more sources of input, but does that planning process pose special challenges?

Does that pose special challenges to your attempt to improve the analytical basis on which transit decisions are made?

Mr. LINTON. Thank you. The ISTEA legislation and the metropolitan planning organizations' (MPOs') new responsibilities, the new processes created through the joint planning regs signed by myself and Administrator Slater, are moving closer to where, at the local level, they are going to have to make more difficult and precise decisions in terms of deciding which mode of transportation to use in the various corridors in the various areas of the country.

It is a challenge because it now involves a number of new players who were not in this process before who also have new responsibilities.

We had a number of outreach hearings around the country, meeting with mayors, MPOs, transit properties and others to try to examine how the ISTEA implementation process is going on in the various areas to see if we can learn from some of the trials and tribulations currently going on, and to see what we can do across DOT to respond to needs for improvement in those areas.

It is also pretty clear that some MPOs are better prepared to handle the new responsibilities than others. There is probably a need for additional modeling techniques and tools so that they will have better precision tools for assessing ridership and being able to assess the impact of various transportation decisions that they will be making. We are hoping to support them in that regard.

We are also looking to regroup and improve on our own investment techniques. We are exploring making some investments in the Transportation Analysis and Simulation System (TRANSIMS) modeling to try to see if we can improve on our own modeling techniques. What we did learn from the 1990 study is that there is a need and also hopefully an opportunity to use resources to improve on that, and that we have a ways to go.

It is pretty early now to determine whether or not the techniques that we have put in place since then and are continuing to put in place have resulted in better numbers. But we realize that there is a need for that, and we are working very hard in that direction.

RIDERSHIP ESTIMATE IMPROVEMENTS

Mr. PRICE. Can you point to improvements in those numbers?

Mr. LINTON. No, I cannot. I can only say that some of the more recent systems that have been up and running in—St. Louis, for one, have had some phenomenal results in terms of ridership numbers.

We recognize the need for improvement and are putting in place a number of apparatuses and making investments of our research dollars as well as our planning dollars to try to see if we can shore up that area.

PEER REVIEW

Mr. PRICE. The GAO report put a good deal of stock in peer review efforts. How much of this is going on in-house? How much is contracted out?

Mr. LINTON. We are doing peer reviews on a number of specific projects. One that is very familiar to me is the Chicago circulator project where we have recently had two peer reviews.

One recent review gave them some recommendations on alignment of their routes and other changes that they can make that will make the system more cost effective and more responsive. We are using that in a number of corridors, particularly as people are beginning to do analysis on new systems.

Maybe someone from my staff might be able to answer some others.

Mr. MCMANUS. We actually, Mr. Price, are doing peer reviews for every major new system project that is in the planning stage.

Mr. PRICE. Is that new?

Mr. MCMANUS. Well, it has been going on for the past few years. What was not mentioned by the GAO this morning that I think is equally important is that we also retained a team of expert contractors who review the ridership forecasts that are currently being produced and critique them.

So in addition to peer reviews of folks from other properties, we also have expert contractors who are looking at the nitty-gritty and the detail to see to it that grantees are using the state-of-the-art in their demand forecasting.

We do the same thing for cost estimation. So we have tried to hit at both variables that were called out in the Pickrell research in that way.

RIDERSHIP ESTIMATES' EFFECT ON PROJECTS

Mr. PRICE. Now, as projects get closer to construction and operation, the ridership and cost estimates become more realistic, more accurate. FTA has the authority to withdraw federal participation throughout the process. Has FTA withdrawn federal participation as ridership and cost estimates became both more accurate and more pessimistic?

Mr. LINTON. I guess I have to turn to someone who has a little more history than mine to respond to that question. To my knowledge, I am not aware of them. Perhaps Mr. McManus will respond.

Mr. MCMANUS. Well, we hold up the progression of the work from one development phase to another if we are not satisfied that the quality of work is up to snuff. We do that in the planning phase, and also in the design phase and the engineering phase.

I can recall in the St. Louis project, for example, it was not planning, it was the design phase where we held up work until they had adequate resources in place to produce the quality of preliminary engineering that we wanted. So there is constant surveillance by expert advisors to the agency as well as oversight by our own staff.

Mr. PRICE. I am not suggesting pulling the rug out from under a project. We need to have accurate estimates from the beginning and to know what we are getting into as we go through the various stages.

Mr. MCMANUS. Well, we try to help. What we are trying to do is get the best use of our grant dollars by making sure that there is sufficient oversight to see that that happens.

DISCRETIONARY GRANTS

Mr. PRICE. Let me ask Mr. Linton to address the recommendations for discretionary grants. You are experiencing budget discipline. The discretionary grants have to come in under these spending caps, and so you are talking about a considerable reduction, down 15 percent in the overall category from last year.

But you are doing more than just reducing the spending in this area. You are also making priority decisions within the category. What kind of thinking went into those trade-offs?

Rail modernization funding, $760 million, the same as fiscal year 1994. New starts funding proposed at $400 million. That is a 57 percent reduction from fiscal 1994. The bus money is down $30 million at $327 million, down $30 million, and you are emphasizing the section 9 funding for buses. What kind of thinking went into that allocation within the discretionary grant category?

Mr. LINTON. Let me just say that what you have described as the 1995 budget areas for discretionary grants other than new starts is the same as it was in 1994. The $30 million difference in the section 3 bus has just been programmed differently in the area of livable communities, but is still in essence a section three.

Mr. PRICE. Programmed differently in what sense?

Mr. LINTON. In terms of emphasis area. We want to emphasize investments in livable communities projects. They technically are still eligible for the same funding line, but that is just an emphasis area.

So in that regard, the budget is pretty much similar to what it was in 1994.

As you probably see, there has been a change in the area of new starts. Four hundred million dollars, which is our proposal, will enable us to fund those projects that currently have full funding grant agreements in place. That is how we are currently utilizing those dollars. It is our feeling that those are projects that we have to emphasize so we use the $400 million to do that.

We also recognize that there are some other projects that are in the pipeline. There are unobligated earmarks that are available for those projects that are not the five new start projects that we have identified for the $400 million.

The biggest emphasis that we have provided is our belief that when you move towards fuller funding with section 9 money, that you provide the kind of capital support and expenditures that makes the section 3 bus application not as significant. When you put that money in formula grants, you provide an equal distribution across the Nation where there is some dependable capital, versus section 3 bus which normally tends to be targeted in response to specific problems. By that infusion in section 9, we are in essence making a much more strategic investment.

In the area of rail mod, we think that with that increased money in section 9, when you look at how section 9 money is spent across the country, significant amounts of that is also spent for rail modification. So we think that we will help those areas with the increased money in section 9.

LIVABLE COMMUNITIES

Mr. PRICE. You are saying that the discretionary grants category shouldn't be looked at in isolation. It needs to be looked at with what you are doing in section 9. When you look at individual items, the trade-offs may not be what they appear.

You mention this livable communities initiative. You say that picks up some of what we have done with the bus money earlier. What is the trade-off there? What is the link between them? What is new about this livable communities initiative?

What is to be gained by packaging it this way and organizing the budget as you propose? What is new about the way you are doing it?

Mr. LINTON. Let me elaborate. What we have done by listing our budget this way with livable communities is putting programmatic emphasis on the allocation of those section 3 dollars.

Case in point, if in fact I had this year $74 million of discretionary money left in our budget, we could have, in fact, packaged projects from that $74 million of discretionary money and administratively just programmed those dollars to emphasize livable communities projects.

But what we are seeking to do here is to increase awareness of this approach, and to solicit the support and endorsement of the Congress for this policy direction that we would like to pursue in the FTA and Department of Transportation.

JOBLINKS PROJECTS

Mr. PRICE. Finally, let me ask you about a small program this Subcommittee supported, the Joblinks projects. I know this Administration has emphasized improving the American's economic situation, especially encouraging people to move off welfare and into the work place and to become self-sufficient.

In many communities, transportation is an important ingredient, and often the critical element in a person's becoming self-sufficient and being able to take a given job.

I would like you to give us a status report on that effort. There was a $1.5 million appropriation to start this national employment and transportation demonstration program.

The idea was to test innovative ideas for helping underemployed and unemployed people get jobs through job training through improved transportation. Can you tell us where that effort stands? Do you plan to move it forward in this budget submission?

Mr. LINTON. Sure. We have, I think, identified—I think there are 13 cities, for the Joblink projects. In fact, that was just done recently, I believe, and so we are in the process now of continuing negotiations towards the projects in those 13 cities.

We think the Joblinks Initiative, as you indicated, is very much aligned with the administration's approach to providing opportunities for employment, access to job training, and as you indicated as well, we believe that transit plays a major role in that.

So therefore we think this project, in concept, and we would hope after it totally gets implemented, would definitely demonstrate that it is worthwhile, a good investment, and something that we would look to do as we continue over the next year or two.

Mr. PRICE. What are the funding implications for this effort?

Mr. LINTON. I am willing to look at the project that we currently have in operation and entertain some thoughts to see whether or not, through our section 26 program, if we can accommodate that within our budget.

Mr. PRICE. I would appreciate your furnishing for the record an update, as you did in last year's hearing, about the contract arrangement under which you are operating with the Community Transportation Association of America, the contracting organization, the sites that have been selected and details on the techniques and strategies you are experimenting with in different settings.

I understand you are talking about some urban settings, some rural settings and some in between. We are eager to work with you on that.

Mr. LINTON. We would be glad to provide the information to you and the other Members of the Committee and we look forward to continuing to work with you. I know of your interest in this area and we think, as you do, it is a good project and we look forward to providing you with that information.

[The information follows:]

The Joblinks Review Board has selected the final grantees for funding in the Joblinks Employment Transportation Initiative. The selected sites have been forwarded to the Department of Labor for 13(c) certification. CTAA has been working with Amalgamated Transit Union (ATU) in order to expedite this process. We are hopeful that this effort of cooperation between CTAA and ATU will be a breakthrough in our effort to speed up the 13(c) certification process. The proposals cover a broad range of activities such as volunteer van, brokerage, and van pool projects. These projects will be demonstrated in urban, suburban and rural areas. Although FTA has dealt with these concepts in the past, we have seldom worked with social services agencies, etc., in connection with job training programs.

The sites selected are:

North Carolina: Cities—Raleigh, Kannapolis and Concord; Counties—Cabarrus, Cleveland, Polk and Rutherford.

Oregon: City—Portland; County—Douglas.

Arkansas: Cities—Pine Bluff and Blytheville; Counties—Jefferson, Chicot, Desha and Lincoln.

California: City—Fresno; County—Los Angeles.

Kentucky: City—Louisville; Counties—Harlan, Jackson, Knott, Leslie, Letcher and Perry.

Michigan: City—Detroit; Counties—Chippewa, Mackinac, Alger, Delta, Marquette, Schoolcraft and Luce.

We are currently working with the Department of Labor to expedite section 13(c) clearance.

HEALTH CARE ACCESS

Mr. PRICE. I just think transportation is a critical link in these employment efforts, just as it is in our health care efforts. So often we find that the missing link is that people simply can't get where they need to go to take advantage of what is available to them.

Mr. LINTON. Absolutely. I think the Surgeon General made reference recently to the point that when we talk about national health care in this country, that it is access to that health care that is so vital for many parts of our nation. Transportation, and especially in the rural areas, is a major link to medical facilities as well as doctors. Transit has to be an integral part of access to health care in this country.

Mr. PRICE. I would say especially in the rural areas that has certainly been our experience in North Carolina.

Mr. Wolf.

WAGE AND BENEFITS COMPARISON

Mr. WOLF. Thank you, Mr. Chairman. Hello again, Mr. Linton. Welcome back. I have some questions. To follow up on a question I was asking with regard to Metro, if you could be helpful or your staff could give us comparison data of wages—and I am sure you have this all so it probably won't be very difficult, but as quickly as possible, wages, benefits in addition to salaries, and give us maybe in the top 100—the list that I was reading goes down to maybe more than that.

This may actually be your list.

If we could get the hourly benefit package because the benefit package could be very important. This great debate on health care, I think people want good health care, all these things. So when I meet with Metro, I can talk to them just to kind of get a better sense.

I would not like to put this burden on Metro because they would have to go out to the other transit systems that you already deal with.

Mr. LINTON. Sure, Mr. Congressman.

Mr. WOLF. Also if we could look at the cost per ride of—now, that may be a little difficult. For instance, on the SEPTA system, if you get on at 74th and Woodland and take it all the way in and then transfer and go all the way up to Olney, is that one price as well as——

Mr. LINTON. One fare plus probably a transfer.

Mr. WOLF. What would that cost? Roughly. You don't have to give me the—that is not important. I am just trying to get a sense of how that would compare if somebody from Oakton getting on the Vienna stop going up, and then be working in New Carrollton, just sort of get some sense.

And I know you will have a little difficulty because different systems go per mile and things like that.

New York I think has a flat rate. Mr. Downey told me that. But if I could get some kind of comparison there, I would appreciate it.

[The information follows:]

One way to make a clear comparison is to look at the amount of fare revenue collected per passenger mile. This is an indicator of the overall level of fares being charged, and controls for the number of transfers required (and whether transfers are free or require a separate payment), different fares being charged on different modes, and distance based fares. The following table compares the average fare revenue per passenger mile in 1992 for transit operators with more than 250 vehicles:

Operator	Number of Vehicles	Fare Revenue	Passenger Miles	Fare Revenue Per Passenger Mile
NJ Transit (Contract)	487	$67,656,950	258,012,200	$0.262
Buffalo-NFTA	331	$22,624,014	92,561,200	$0.244
NY-MTA-MSBA	253	$28,104,866	119,302,100	$0.236
NY-MTA-NYCTA	7,973	$1,596,292,337	7,487,981,100	$0.213
Port Authority-PATH	285	$55,678,792	268,417,300	$0.207
Philadelphia-SEPTA	1,964	$262,736,751	1,268,755,100	$0.207
Chicago-RTA-CTA	2,957	$352,161,594	1,725,945,200	$0.204
New Jersey Transit	2,251	$339,466,461	1,754,210,900	$0.194
Milwaukee-County	458	$29,459,784	155,765,300	$0.189
Baltimore-Maryland DOT	859	$67,504,611	358,604,900	$0.188
Washington-WMATA	1,970	$293,144,852	1,558,737,700	$0.188
New Orleans-RTA	418	$34,730,389	193,962,000	$0.179
San Francisco-Muni	844	$82,508,400	462,553,600	$0.178
Pittsburgh-PAT	820	$50,124,332	281,427,900	$0.178
San Diego Transit	273	$23,710,726	149,649,500	$0.158
Cleveland-RTA	749	$37,970,769	243,226,100	$0.156
Miami-MDTA	747	$53,869,679	348,896,700	$0.154
Madison-MMT	283	$5,174,792	33,979,100	$0.152
Kansas City-KCATA	282	$8,046,732	53,392,600	$0.151
NY-MTA-Metro-North RR	706	$231,373,350	1,581,016,500	$0.146
Minneapolis-St. Paul-MTC	869	$41,028,539	286,341,900	$0.143
LA-OCTA	646	$28,941,254	207,151,600	$0.140
Oakland-AC Transit	614	$33,766,516	244,097,500	$0.138
Boston-MBTA	1,848	$167,049,788	1,216,482,000	$0.137
LA-SCRTD	1,933	$222,108,058	1,641,705,700	$0.135

Operator	Number of Vehicles	Fare Revenue	Passenger Miles	Fare Revenue Per Passenger Mile
Columbus-COTA	298	$11,347,399	86,480,800	$0.131
Detroit-SMART	367	$10,158,731	78,166,400	$0.130
NY-MTA-LIRR	947	$282,844,440	2,230,412,200	$0.127
St. Louis-Bi-State	620	$22,921,328	180,806,700	$0.127
Portland-Tri-Met	533	$27,061,419	224,415,200	$0.121
Chicago-Metra/C&NW RR	277	$56,561,529	498,516,100	$0.113
Detroit-D-DOT	474	$31,394,374	279,459,500	$0.112
Dallas-DART	804	$21,723,511	196,214,900	$0.111
Chicago-RTA-Metra	416	$67,199,120	629,877,400	$0.107
San Francisco-BART	450	$98,541,870	935,522,900	$0.105
Atlanta-MARTA	729	$60,249,281	574,172,000	$0.105
SF-SamTrans	270	$10,629,995	104,319,200	$0.102
Chicago-RTA-Pace	993	$20,363,182	208,176,100	$0.098
Houston-Metro	1,113	$45,641,981	469,091,900	$0.097
Dayton-RTA	250	$5,181,623	54,105,800	$0.096
SF-Golden Gate	250	$15,745,554	165,210,600	$0.095
Seattle-Metro	1,724	$45,926,680	482,460,200	$0.095
Denver-RTD	686	$22,749,599	240,549,500	$0.095
Phoenix-Phoenix TS/ATC	274	$12,154,014	133,324,100	$0.091
San Jose-SCCTD	449	$18,701,794	217,994,800	$0.086
Tacoma-Pierce Transit	257	$4,740,478	57,963,600	$0.082
Cincinnati-SORTA	351	$11,557,046	142,350,800	$0.081
San Antonio-VIA	690	$12,965,021	161,862,600	$0.080
Austin-Capital Metro	350	$6,445,505	90,588,500	$0.071
Louisville-TARC	275	$5,108,524	72,025,200	$0.071
Salt Lake City-UTA	464	$7,927,261	134,870,300	$0.059
Honolulu-DOT	415	$19,537,823	341,986,200	$0.057

INSPECTOR GENERAL REPORTS

Mr. WOLF. The other question is more a request than a question and we talked about it and I appreciate Secretary Peña—I understand he has followed through on this, but I think it is important that you read all the IG reports that come in because a lot of them are good. So I think that would be helpful if you or your top people look at them.

ATLANTA OLYMPICS

The third thing is on the Atlanta request, and some people came by to see me, former Congressman Lindsey Thomas was here earlier, I am sure he had to leave. Originally, I had heard the concept was new buses and now they are trying to sell a different approach for the Olympics.

They seemed to indicate that you were somewhat supportive of that. Could you give the Committee the details? Is that the best way to go? If we want to help them out, is that the best way to go or——

Mr. LINTON. I will comment for you, Mr. Congressman. The question was asked earlier but——

Mr. WOLF. I am so sorry.

Mr. LINTON. I can talk about the Olympics all day long, so I am very happy to do that.

Mr. WOLF. It sounds like you have a pretty good plan.

Mr. LINTON. I think we do. We are working very closely with them on an ongoing basis. We will try to get transit properties around the country to deliver 2,000 buses to Atlanta. A substantial portion of those buses will be new buses. A small portion of those buses will be nearly new buses, but all in top flight shape so that we can be very proud when two-thirds of the world is watching what is going on in our country.

To date we have gotten tremendous support from both general managers as well as the associate members of APTA, i.e., the manufacturers and suppliers. We have also been working and having discussions with many members of the unions as well, because we also need about 3,000 drivers and over 150 mechanics in addition to the 2,000 buses.

So we are working very strongly to make sure that we all can be proud of what goes on in Atlanta in 1996. I think we have a good approach, and I see some real signs of success.

Mr. WOLF. But specifically what are they asking for? And do you agree with what they are asking for, the specific way of putting it together? They are asking for basically an earmark of $15 million. Or are you prepared to take it out of your—I am just trying to see how can we help.

I think from what they told me, there are some good rationale to it and they make a good case. I am just trying to think of how—what is the best way to do it to make sure that we limit the liability, limit the government's responsibility, and do as much as we possibly can to make sure that the taxpayer is protected, should it be approved and I haven't made up my mind whether I am for it or not. I just want to gain the expertise of FTA on it.

Mr. LINTON. At this point we are working with OMB to try to move towards our 1996 budget, to accommodate some of the costs that are going to be involved in this project.

It is clear that by getting the cooperation from the transit properties around the country and having them in essence lend 2,000 vehicles, the costs and the numbers that we are looking at are much less than they would be if we made any effort to try to purchase or lease or whatever would be necessary to provide that kind of transportation service.

I think the approach is a sound one. The Atlanta Olympic Committee are indicating they need to supply funds for insurance for the vehicles while they are there, monies to operate the buses, and maintenance costs for the vehicles while they are there. We have to make sure that we have transportation costs, if vehicles have to be transported from their properties to Atlanta and returned.

I think all of the costs that they are discussing are reasonable ones, but we will be working with OMB to make sure that we have a proposal to the Congress and hopefully that will make that event successful.

Mr. WOLF. So you don't look for this cycle, this budget year to deal with that issue then?

Mr. LINTON. We are not at this point. Our 1995 budget as we are presenting it at this point does not provide for resources for the Olympic games in 1996.

Mr. WOLF. Well, but if you didn't do it in this cycle, would they be able to catch it in time?

Mr. LINTON. Congressman Carr raised some concerns early on about whether or not 1996 would be timely. So in my discussions with the representatives of ACOG, I expressed my belief that we would probably have to do this in 1996. They felt, based upon what the costs were for, that they would be able to operate with a 1996 budget.

Mr. WOLF. I didn't know. I didn't know that.

Mr. LINTON. But I do understand that Congressman Carr has expressed some other concerns.

ATLANTA OLYMPICS BUSES

Mr. WOLF. Okay. Well, you probably ought to talk to the Committee as well as OMB. The longer you are here, you are going to dislike OMB more and more as the time goes on. I used to be with a Cabinet Secretary and Friday afternoons at 4:30 or 5 o'clock they always were changing things. So the Committee probably ought to be involved a little bit with what you are talking with them on.

It was a different approach than what I originally thought they were talking about, getting all new buses before they are delivered, having them come down there. They have apparently changed it. Before I support it—again, I am not for it and I am not against it—I want to hear from FTA as to your feelings, is this the very, very best way?

How do we reduce the liability? What do we do to make sure the taxpayer is protected if this is even done? And I think if you do it in that following fiscal year, you are really going to have a problem, but maybe that would be okay. But if you could be talking to us. Have they given you any paper to look at?

Mr. LINTON. Sure, and we have been reviewing their plans and making suggestions as well, and I and my staff would be very happy to come meet with you or any other Members of the committee and give you a personal briefing on what we are doing.

Mr. WOLF. Once you finish with them, maybe you could do that, just tell us how it looks and tell us what you think the costs will be and if there is a way for it to be done that you feel comfortable with.

Mr. LINTON. Okay.

NEW TECHNOLOGY

Mr. WOLF. The last question is kind of an open-ended question. Is there anything new and exciting taking place out there that we are not reading about as far as a new system that is developing, or is there any new technology that is being worked on, either here in the U.S. or abroad that would have the effect of reducing capital costs and moving more people, safer, cleaner, more efficient? Is there anything happening?

Mr. LINTON. I think there are a number of things that we are excited about. One is there is a lot of discussion about GPS, global positioning systems. It is basically a satellite and defense technology, but it is being used a lot now in terms of fleet management, and we have some properties that are beginning to experiment with that.

It would be very helpful in giving riders real time information on when vehicles are going to arrive at locations. We are looking to——

Mr. WOLF. How would you do that? The fact is, there was something I was going to raise with Metro tomorrow and maybe you could help us and be part of that. It seems that when the Metro train is leaving downtown Washington and pulling up at the West Falls Church stop, about a minute before it pulls up to the West Falls Church stop, the buses, the commuter buses leave to go to Reston, and it just seems to happen that way over and over and over. If there could be some communication and synchronization through IVHS that the train is coming in the station, so the bus leaves five minutes after the train or three minutes after the train, because when they get off the Metro, they just rush down there and get on.

Something like that could save a lot of money, save a lot of time, and increase ridership, because now you get off and have a 15 minute wait on the ramp. You say, it is not worth it; I will get somebody to pick me up. Maybe I will drive tomorrow.

Do you have any ideas? Maybe we could use Metro as pilot or something like that.

Mr. LINTON. That is exactly the kind of information that can be provided through both the GPS, global positioning systems, as well as the Advanded Public Transportation Systems (APTS), which is the public transportation aspect of Intelligent Vehicle-Highway Systems (IVHS). It provides real-time information, centralized coordination.

It gives the transit properties a way of making sure that they have very reliable and precise fleet management. We do have systems now who are beginning to adopt that. We are spending our research money in pursuing a number of projects in that area. We think it has major benefits for us.

Another project that I think is going on along right here in Washington, D.C. is the use of proximity cards.

Mr. WOLF. What are they?

Mr. LINTON. Farecards that are put close to a device that can read and deduct fares from the card.

Mr. WOLF. So you would get a $100 card? I don't follow you.

Mr. LINTON. You have a proximity card that you can hold up to the device that reads the card.

Mr. WOLF. Rather than putting it in the farecard—similar to all cards going into toll booths?

Mr. LINTON. And right here in WMATA, I think they are starting this month, in fact, with a proximity card that will allow one to go from the parking lot to the rail system to the bus with one card, and the card will deduct the fare from each one of those venues each time you use it.

Mr. WOLF. System wide?

Mr. LINTON. Yes, sir.

Mr. WOLF. Will you be able to put it in somewhere and see how much you have left on it, some way to read it?

Mr. LINTON. That is right. Even in fact if you were to lose the card, the amount that was registered in the card at the time it was lost, they would know and it can be replaced.

Mr. WOLF. If somebody else hasn't used it.

Mr. LINTON. I think you can call and they can cancel.

Mr. WOLF. Like a credit card?

Mr. LINTON. So that is something that we have. They will be starting I think this month in the demonstration and expansion here in the WMATA system, and we are doing those kinds of projects in other places in the country as well.

Mr. WOLF. If you have any other ideas, or any of your staff, with regard to what could be done, particularly I think we have WMATA here, and we would certainly put a sufficient amount of money in there, but if there are some ideas—we are not talking about dollars frankly, but ideas that they could be doing that are being done in other areas that move people quicker, that make mass transit safer, more efficient, things like that, I would appreciate knowing.

And if you think you actually have a significant number, although I am sure they have good people following what is going on, we can get your people and WMATA people to sit down together.

I think that is basically it. I have a couple other questions I will submit for the record, but I appreciate your testimony very, very much and appreciate your staff.

Mr. LINTON. Thank you.

GRANTS MANAGEMENT

Mr. WOLF. The GAO identified serious shortcomings in the FTA's oversight of grantees that allowed waste, abuse, and mismanagement in its active grants. As a result, in 1992, FTA initiated an action plan to correct the pervasive problems in its oversight function.

In a January 1992 report to the Government Operations Committee, GAO expressed its frustrations with FTA by stating that: "FTA has allowed this waste and mismanagement to continue. However, GAO's work shows that the problem goes much deeper—to FTA's laissez-faire oversight philosophy and its unwillingness to enforce corrective actions."

Would you please bring the Committee up to date on the status of this action plan.

[The information follows:]

Since 1989, FTA has made a number of changes in its oversight program that have improved our oversight and we believe satisfy the OIG and GAO concerns. FTA is working with OMB, the GAO and the Office of the Secretary to implement an organization-wide structural and procedural change that addresses OMB's one remaining concern in order for the agency to be eligible for removal from the OMB High Risk category. A task force has been established to address the reorganization and they have been instructed to report by midsummer. Some of the actions taken since 1989 to address the OIG and GAO concerns include: the dedication of more than the equivalent of 79 full time employees through contractor resources provided under section 23; increased the resources devoted specifically to oversight functions with the reassignment of 40 FTE staff positions in the regions; and instituted a grantee risk determination process to assess the relative risk to each grantee's potential noncompliance with statutory and administrative program requirements. In order to not lose momentum, FTA has established several programs to prepare grantees for triennial reviews, financial management oversight reviews and to provide technical assistance in competitive procurement procedures.

SAVINGS OR RECOVERIES

Mr. WOLF. Are you able to quantify any successes you may have achieved through any recovered funds or savings? Do you have any benchmark examples which could provide the Committee some comfort level that FTA is getting its arms around this problem?

[The information follows:]

Just some of the examples of FTA's recovery of funds include: The Greater Cleveland Regional Transit Administration recently refunded FTA $379,824 to cover the early retirement of buses; in September 1993, BART paid $863,344 in interest charges for an erroneous drawdown—the principal had been paid long before; and $86,851 was recovered from the MTDB in October 1993 for premature removal of buses from service. Examples of recoveries that resulted from the triennial review include $1,000,000 at AC Transit. The $1,000,000 will be used to reduce federal dollars in new bus buys and $15,725 at Tri-Met of disposal for excess property. In the PMO program, more than $2,000,000 have been saved as a result of finding project costs not eligible for FTA participation at the E. St. Louis Metorlink. While these examples are not benchmark, they are routine and demonstrate FTA's commitment to the issue.

GRANTEES' ACCOUNTABILITY

Mr. WOLF. Has the above cited "laissez-faire" approach been replaced with one that firmly holds grantees accountable for adherence to grant provisions?

[The information follows:]

We share your concern with ensuring compliance with federal requirements and the proper use of funds. Although FTA's past oversight was fully consistent with applicable laws, regulations and other federal directives, we have enlisted our available resources to greatly and effectively improve our oversight in the grants management area. For example, in the area of the triennial review, we have developed a handbook that may be used by contractors or regional staff in the performance of the triennial review that provides in-depth descriptions of the statutory and administrative requirements covered by the reviews. Additionally, the handbook requires sampling and testing in the areas that have been of concern to the OIG and the GAO such as competitive procurement, inventory control and maintenance. The issue of documentation is covered in the handbook by providing a list of common examples. Additionally, FTA has developed draft guidance for the regional staff on the use of remedies or sanctions to bring grantees into full compliance with statutory and administrative requirements. FTA's current initiatives are consistent with the philosophy that recognizes the integrity of local officials performing their legitimate roles in meeting transportation needs.

CONGESTION RELIEF

Mr. WOLF. In your budget justifications, you indicate that of the total $2.69 billion requested for section 9 Urban Formula Grants, 10 percent will be set aside from each area's apportionment for a new program, "Congestion Relief Transit Incentive Grants." You indicate that qualifying grantees will have to certify that the funds will be used for congestion mitigation activities.

Can you tell the Committee exactly what types of activities would be eligible for funding under this program, or perhaps even give some examples?

[The information follows:]

These funds will be made available to each urban area or state if the area or state can demonstrate that the proposed project will contribute to decreased traffic congestion in the urban area. The criteria are types of projects that are part of the traffic congestion strategies are required by 49 CFR Part 614, management and monitoring systems; DOT interim rule. Examples of a traffic congestion strategy include, but are not limited to: (1) transportation demand management measures; (2) measures to encourage high occupancy vehicle (HOV) use, i.e., ridesharing/vanpooling; (3) public transit capital improvements; and (4) purchase of systems to improve transit operations, i.e., traffic signal preemption for buses.

Mr. WOLF. How exactly will this program work? 10 percent of each urban area's section 9 allocation will be set aside, correct? And what agency will make the grant award—FTA, the state, the local MPO?

[The information follows:]

Yes, the 1995 apportionment notice published in the Federal Register will show a 10 percent set-aside from each urbanized area over 50,000 in population, or the appropriate governors apportionment by state. Incentive grant funds can be used for any eligible section 9 project that would alleviate traffic congestion in the urban area. Grants will be awarded by FTA and each grantee will certify as part of its section 9 grant application that the project proposed for funding will contribute to decreased traffic congestion in the urban area.

ADA COSTS

Mr. PRICE. The question of ADA compliance costs has come up today generally in connection with the budget proposals for transit operating costs. I would like to revisit that.

Determining the true cost of complying with the Americans With Disabilities Act remains an elusive task. Responses to questions in last year's hearing indicate total estimated compliance costs for the next five years of $945 million, including approximately $700 million for paratransit.

The American Public Transit Association has estimated ADA compliance costs are between $693 million and $1 billion. The General Accounting Office in March 11th, 1994 report estimates the compliance costs to be $920 million annually for the five-year phase in period.

Based on your analysis of transit agencies updated paratransit plans, what is your best estimate of the cost to comply with the Americans with Disabilities Act?

Mr. LINTON. I think the best numbers that we currently have reflect an annual cost of about $932 million. That includes both operating as well as capital, and I think the capital area approaches $279 million and the operating is $653.

Mr. PRICE. The GAO determined the average cost of a paratransit trip for the 12 agencies they visited to be $11.63. That compares to a national average of $1.75 for a fixed route service trip, according to an APTA estimate. Do those figures sound accurate?

Mr. LINTON. I am not sure about the per trip cost. I know that for paratransit, the annual operating costs that we are projecting are in the area of $700 million, and approximately $600 million of that is in operating and $100 million in capital.

The paratransit cost is much costlier than the fixed route of course, and I think one of the things that we need to encourage and one of the things that will happen as a result of increased investment in the capital side is that we will have fixed route systems that will be better lift equipped. Many of the properties will now be even purchasing low floor buses. Hopefully with that, some of those who are using paratransit can be diverted to the fixed route system.

I know that was always an effort on our part when I was on the board of SEPTA to try to reduce the paratransit by trying to encourage as many people as possible to use fixed route systems, and as you update the equipment on those systems, they can better accommodate those individuals.

Mr. PRICE. As you review this, if it turns out those estimates vary considerably from the figures you are using to estimate overall costs, I would appreciate your furnishing that information for the record.

APTA has also estimated the additional cost to comply with the Clean Air Act will further burden transit agencies by about $57 million annually, mostly for fuel expenses. Does that sound about right?

Mr. LINTON. Well, I think our current efforts indicate about $265 million will be the total annual effort on the Clean Air Act.

OPERATING ASSISTANCE REDUCTION

Mr. PRICE. You see where we are going with this. At the same time the federal government has placed these generally unfunded mandates on transit agencies the administration budget would reduce operating assistance.

Now, it is all relative. Had Mr. Kasich's budget passed, we would have wiped out operating assistance altogether. Still, the Administration's proposal is going to pose a considerable difficulty for systems struggling to cope with these costs. One might have expected to see some increase in operating assistance to offset the additional requirements.

You have stated the logic that goes into the trade-off you have posed between operating and investment funding. What do we say to local agencies struggling to keep up with essentially federal requirements?

Mr. LINTON. Mr. Chairman, I wish I could have a very nice and quiet and easy answer to that question. All I can say is that we understand the costs that have occurred in regards to this and that agencies are going to have to make tough choices. As I said to your colleague, Representative Foglietta, we had to make tough choices as well, and I wish that we didn't, but it is clear that we have budget caps that we have to respond to, and we also are trying once again to be consistent with the President's mission of investing in the infrastructure. There was no other way we could approach this from our view in terms of accomplishing both of those challenges without the approach that we took.

As I said, I sat on the board of a transit property and had to struggle with decisions that we had to make regarding budget cuts, trying to accommodate reductions. They are tough, and they were tough for me to make, but I made them and——

PARATRANSIT COSTS

Mr. PRICE. Let's turn to choices for local systems. The GAO report says,

> Officials at nine of the twelve transit agencies visited told us that higher paratransit costs in the absence of new funding could force them to reduce existing fixed route service or delay planned service expansion in order to make additional funding available for paratransit service. In the absence of additional funds from federal, state or local sources, transit officials said they would also have to request options such as, (1) restricting paratransit service to those persons who meet the ADA's criteria; (2) requesting a waiver to delay full compliance with the ADA, and (3) increasing fares for all service.

How likely is this? How seriously do you take the possibility that the transit agencies would have to resort to one or more of these options?

Mr. LINTON. I think what was not mentioned in those comments was pursuing the options of making trade-offs. They mention the absence of having additional state or local or federal funds, but what we are providing is additional federal funds.

Some of the properties will have to make, as I indicated earlier, trade-offs with some of the other partners who are responsible for subsidies. That includes local and state government. There may be possibilities for increased operating support from local governments in exchange for the infusion of dollars that we are providing in capital. They could try to restructure their budgets in that way.

All our buses that are now being purchased are lift equipped. As you begin to purchase low floor vehicles, it is my belief that some of the estimated costs of the paratransit service will also be reduced.

Over the years, we have gotten closer to the numbers and looked at the plans that the properties are presenting to us. There has been some fluctuation in those costs, and I think we will continue to see some as fluctuation.

ADA WAIVER REQUESTS

Mr. PRICE. How many transit agencies have already requested waivers from full and timely compliance with the ADA.

Mr. LINTON. I don't have that offhand.

Mr. McMANUS. For paratransit plans we have only had two requests because they are not at the point where they need to request waivers. They have until 1997 to comply, and we have had requests for time extensions for compliance with the accessibility requirements of the key stations, but not waiver requests.

Mr. PRICE. How many might be considering requests for waivers?

Mr. McMANUS. Not yet, no.

Mr. PRICE. It is an option some of these agency officials fear they may have to resort to. They take it pretty seriously.

Responses to questions asked during last year's hearing said ADA compliance costs appear to fall disproportionately on smaller transit systems. According to the FTA information, ADA compliance costs, both capital and operating, range from two to six percent for systems with populations greater than one million. For smaller systems, those serving populations under 50,000, compliance costs range from ten to 20 percent of total costs.

As you pointed out very effectively this morning, smaller systems are the ones most dependent on Federal operating assistance. Does this raise further questions about the proposal to cut these operating subsidies?

Mr. LINTON. One of the areas of our budget where there has been a significant increase has been for the small systems, section 18. They will get a significant increase, and we have an increase of $24 million over our fiscal year 1994 budget.

That is an area of money in which they can use for both operating as well as capital and they, in fact, would get some help in the area of providing additional services for ADA compliance.

PARATRANSIT TRIPS

Mr. PRICE. Does ADA limit the number of paratransit trips an individual may request?

Mr. LINTON. I don't think there are any.

Mr. McMANUS. It has to be comparable to the regular service.

Mr. PRICE. The FTA noted in last year's hearing, on page 954 of the transcript, an individual who averages only six to seven paratransit trips per month costs the transit authority almost $1,000 per year.

Would transporting an individual to and from work each day cost the transit authority more than $6,000 or $7,000.

Mr. LINTON. I don't know if the figures are accurate, but I can say that there are no limits on the number of trips that an individual can make on paratransit. We don't impose any limits.

Mr. PRICE. Mr. DeLay, welcome back.

HOUSTON METRO

Mr. DELAY. Thank you. Thank you very much. I am terribly sorry I missed this afternoon.

These Committee hearings are all going on at the same time. I have been over at VA/HUD appropriations and EPA is up there, and I have got a Superfund site, so it is very important for me to be over there too. This is also important, and I wanted to ask you a couple of questions on the Houston Metro, and then ask you a—sort of a philosophical question.

Your 3(j) report finally arrived at my office this past Monday afternoon. After reviewing it with our Metro general manager, Bob MacLennan, there is, I think, a misstatement that should be clarified. The FTA states that Houston's capital financing commitment is rated medium, and the FTA contends, and I quote out of the report, "Metro is being asked to pay for an increasing amount of non-transit tasks, such as city police work and street construction and the Metro board chairman has announced that Metro's reserves will be reduced from $503 million in 1993 to $68 million in 1997. Nevertheless, Metro should be able to finance the project and its existing system without incurring any debt," close quote.

Now, yesterday in a letter to you, Mr. Linton, General Manager MacLennan pointed out that this wasn't the case, and I quote, for the record,

> The fact is that $330 million, or 76 percent of the $435 million reduction in the capital reserve account referenced in this sentence is for the implementation of the regional bus plan. The regional bus plan is being funded at a net 50 percent local share and the drawdown of the capital reserve account reflects Metro's substantial local funding commitments to its mass transit program. Indeed, the capital reserve was created to provide the local match for such transit-related activities without borrowing and it is being used for this purpose. Further, Metro always has and remains committed to and is financially capable of fully funding all operating and maintenance costs of its transit systems with local revenues.

Would you care to comment on MacLennan's clarification?

Mr. LINTON. I would like to meet with the general manager. I am kind of surprised by that because from my understanding the profiles of our 3(j) reports were provided to the properties for comment, and I would have thought if that process is being honored, that this information would have been provided once those profiles were provided.

Mr. DELAY. Well, I would have to check and see what was provided and why we had the cross communication.

Mr. LINTON. But I would like to examine that discrepancy and find out what the problem is, and see if we can——

Mr. DELAY. I would appreciate that. And could you provide the answer for the record?

Mr. LINTON. Sure.

[The information follows:]

Although Houston Metro has an extremely large capital reserve, FTA continues to be concerned over Metro's ability to pay for 50 percent of the $1 billion Regional Bus Plan (RBP) and therefore continues to believe that a rating of "medium" is appropriate for both the capital financing plan and the stability and reliability of the operating plan. FTA is concerned because Metro has made significant commitments to fund the capital costs of non-transit projects such as local street improvements and to fund non-transit services such as police salaries which could impact Metro's ability to pay for the capital and operating costs of the RBP. Between 1993 and 1997 operating cots of Metro's transit and non-transit commitments will exceed incoming revenues, which will require Metro to use capital reserves to pay for the unfunded gap in operating costs.

In 1993 Metro had $503 million in capital reserves. By 1997 these capital reserves will be reduced by $435 million to $68 million. Metro's general manager has stated that $330 million of the reduction in reserves will go for the RBP including those elements which will receive FTA funding, the rest will go for other transit and non-transit capital and operating costs. After 1997, in order to complete its $500 million local share of the RBP, Metro will need an additional $170 million for capital costs of the RBP, but only $68 million would remain in reserves. Therefore, if current trends continue, Metro will not be in a position to fund the rest of its commitment to the RBP.

3(j) REPORT RATINGS, ON NEW STARTS AND EXTENSIONS

Mr. DeLay. I would appreciate it. I have got a chart here out of the 3(j) report. This is it here, Table 2. It is very interesting. I noticed the—there are relatively few ratings of high in this chart, the summary of 1995 new start ratings where you have high, medium and low or low, medium and low.

In fact, out of the 50 that actually have a financial commitment rating, only nine have a rating of high. This is less than 20 percent of all the projects on the books to date.

Now, Houston has a dedicated one percent sales tax. It asks for absolutely no federal operating subsidies. It has a cost per new rider index of $2.64, which is the lowest of all the projects, I think, looking at this, and has a 50 percent federal match, and yet Houston is still rated as medium.

Could you explain to me how the FTA derives these classifications and explain why Houston rates medium rather than high and is there a reason for handing out so few ratings of high?

Mr. Linton. Excuse me a minute. Let me see if I can ask Mr. McManus to respond to that.

Mr. McManus. Well, I think we always get some comeback on the high, medium, low appellations that are used in these ratings. I am a little surprised that Houston is complaining because we——

Mr. DeLay. No, I am complaining. Houston is not complaining. I am complaining.

Mr. McManus. All right, sir. It is just a literal representation of the criteria that are listed at the bottom of the table. That is all it is. It is a judgment within the parameters of those criteria.

With respect to the progress of the project itself, why, we are progressing right through the development phase with them, and the report has a very favorable outcome with respect to the project.

Mr. DeLay. I was just interested. It seems to me that if you are going to have that rating system, and I didn't go through all——

Mr. McManus. It is fine print, but it does describe how that—how those adjectives are judged.

Mr. DeLay. But nowhere in your judgment is there the cost-effectiveness?

Mr. McManus. Yes, that is also on the table and of course Houston rates very well. All your comment pertained to was the financial commitment and stability and reliability part of the tabulation. There also is a cost effectiveness consideration, and Houston rates very well there.

Mr. DeLay. Is part of your list a local dedicated tax? Do you get credit for that in your ratings?

Mr. McManus. Yes, with respect to stability and reliability.

Mr. DeLay. Well then, I guess the other way to ask it is, how did Houston get pulled down from a high? What is it they need to improve?

Mr. McManus. To be honest about it, I am surprised. I hadn't focused on that because I had thought of Houston as being a project that we had listed in our report among those that we would consider next for full funding grant agreements.

Mr. DeLay. Well, okay. I won't belabor that, but I would be interested. I just don't understand. I guess it is just like a Texan, always wanting to be at the top. It got to me that we are only medium. I want Metro to be "high". We always try to be the best.

Mr. MCMANUS. Well, you are winning.

HOUSTON FULL FUNDING AGREEMENT

Mr. DELAY. Talking about the full funding agreement, what is the current status and the future time frame for Houston's full funding agreement? Would you tell me?

Mr. LINTON. We are in negotiations. I think there are some issues regarding the scope of the project that we are still having to resolve.

Mr. MCMANUS. It is just a case of identifying the scope.

Mr. DELAY. For the record, the FTA counseled Metro that a full funding grant agreement was neither a necessary nor advisable way before your watch and that created this problem, particularly with your new language that you are going to have.

What kind of assurance could you give me that the language in your budget is not intended to penalize those of us that relied on FTA's prior statements that a full funding agreement was not necessary?

Mr. LINTON. We don't intend to penalize. The $400 million reflects this year's budget, or 1995's budget for the five projects that have the full funding grant agreements (FFGA's). But we are planning to continue to work with projects such as Houston where we know that we have unobligated earmarks which we continue to provide to them, and we continue to work towards the full funding grant agreement.

So we don't anticipate that lack of an FFGA would delay our working with them to complete the project.

PRIVATE ENTERPRISE

Mr. DELAY. Mr. Chairman, I know you got a vote pending and you probably want to clean up some things. I just—very briefly, in your grantee flexibility, in your statement you mention your—an administrative reform such as grantee flexibility and issuing grant contracts are precisely what Vice President Gore has in mind for his National Performance Review, and I don't know if you saw it, but there was a piece written by Heritage on this and they are making the case that what you are talking about is basically going to end participation of private enterprise, and that this is contrary to Gore's NPR.

In fact, there were, I think, two people in this administration, David Osborne, senior adviser to the NPR, who had written the Secretary pointing out that the private enterprise policy is indeed a model program and that eliminating it would be a mistake, and that I think they have in the past written to people saying that eliminating private enterprise policy is not consistent with the NPR.

How do you respond to charges that the FTA is hanging private sector transit out to dry with the new so-called flexibility policy?

Mr. LINTON. We are still at this point in a rulemaking proceeding and have not finished with our final rules to the Federal Register, so I have to keep that in mind as I respond to this.

But it is still my commitment to include and involve private sector participants in transit. I have said this repeatedly, that the unmet demand of transportation users cannot be provided by the public sector alone, and that if we don't continue to have private sector participation, we will not be able to meet that demand.

Also in response to the Congress, ISTEA has directed, through the MPO process, through the state and metropolitan Transportation Improvement Programs (STIPs and TIPs), the joint planning regs that we have passed or signed, Rodney Slater and I—all of this is encouraging local participation, and local decision-making. We want to allow that to occur, but at the same time we recognize that we have regulations in place that will allow us to continue to monitor the effort to include private sector participation.

I was on the Appropriations Committee in the Pennsylvania house, and we had both of the gentlemen who wrote the book come to discuss with us ways to approach Reinventing Government, even in Pennsylvania. The books are somewhat like the Bible, in that you can turn to any page you want to and find evidence to support your own claim. We think what we have done is consistent with putting the power back closest to those who need to make those decisions.

Mr. DELAY. Thank you, Mr. Chairman.

LIVABLE COMMUNITIES

Mr. PRICE. Mr. Linton, we are going to wrap up here. We will have a number of questions for the record. I want to bring up one matter. I was struck earlier by your linking the $30 million reduction under the discretionary grants for bus money to the $30 million initiative for livable communities.

I have been looking at some of the material on the livable communities initiative, and it leaves me with some questions. Let me just say briefly what those are, and then we probably will need to get you to respond for the record.

The activities described under this livable communities initiative include capital grants for such activities as pedestrian walkways, bike racks, landscaping and so forth, stimulating greater involvement in local planning and design processes by neighborhood organizations, small and minority businesses, and other stakeholders who are not current participants, serving as a companion program to the President's empowerment zones, enterprise communities, and rural investment initiatives.

They sound like worthwhile activities, but I am not clear how directly transportation related those are. In fact, some of it sounds more like it might come under the Housing and Urban Development Department rather than the Transportation Department. It raises a question to me what the focus of this program is.

How much discretion will the Administrator or the Secretary of Transportation have in determining the mix of activities. How much discretion will the administrator or the Secretary have? Will these livable community grants be freestanding Federal grants? Will they require non-Federal contributions, matches from localities and so forth?

Let me ask you to briefly respond. We will submit a fuller set of questions on this program and several other items for your attention.

Mr. LINTON. Sure. Part of some of the descriptions that you referred to, the planning and some other areas, will come out of other sections of our program, section 26 and others. That will not come out of the section 3 area where the $30 million is.

Those planning grants and those other kind of grants would have to come out of that area, but we can, under section 3, provide programs that we think directly benefit the increase of transit usage, and as long as we tie those projects into that, we can do that.

I would submit that some of our section 3 projects that are probably already being done by transit properties would conform with livable communities.

We plan to do nothing that goes beyond the scope of our statute and is not consistent with our ability to tie those projects directly to increasing transit ridership. That is the objective.

Mr. PRICE. We appreciate your colleagues and your testimony and patience.

We appreciate the work you have done pulling this agency together and getting it on a good course. We look forward to working with you.

Mr. LINTON. Thank you.

[CLERK'S NOTE.—Additional questions submitted for the record follow:]

PROPOSED OPERATING SUBSIDY REDUCTION

Mr. CARR. Under the administration's proposed budget, the 25 percent reduction in operating assistance would be applied on an equal proportional basis to all communities receiving such assistance; is that correct?

[The information follows:]

Operating assistance will be reduced across the board for the section 9 program, which applies to all areas greater than 50,000 in population. This is proposed because it is equitable to all areas, and it follows the direction established by the House Appropriations Subcommittee during the 1994 appropriations process. The reduction will be offset by a large increase in capital assistance. In both small and large areas, the increase in capital assistance will allow modernization of equipment, faster replacement of over-age vehicles, and more rapid repairs of older facilities. Newer vehicles require less maintenance, are more fuel efficient, are accessible to persons with disabilities, and are cleaner burning (in fact, a 1994 diesel bus engine when compared to an early 1980's engine by the same manufacturer cuts pollutants by 93 percent for particulates, 96 percent for hydrocarbons, 91 percent for carbon monoxide, and 58 percent for nitrogen oxides).

Mr. CARR. Is the Federal Transit Administration looking at more equitable ways of distributing the proposed operating subsidy reduction?

[The information follows:]

No. The distribution of operating assistance involves many complex issues, and any attempt to make changes in the way it is allocated would likely divert attention from the more important goal of reallocating funds from operating to capital assistance.

In addition, section 12(d) of the Federal Transit Act, as amended, precludes FTA from regulating "rates, fares, tolls, rentals, or other charges fixed or prescribed for such system by any local public or private transit agency". Any attempt to develop new distribution criteria would likely influence issues related to passenger fares, service levels, or employee compensation.

Mr. CARR. Which of the alternatives appears most fair? Do you intend to ask the Congress to consider a specific alternative?

[The information follows:]

We are considering several changes to the Federal Transit Act as part of our review of the legislation in preparation for reauthorization of ISTEA. Operating assistance will be a key part of this review. However, it is too early to tell exactly what changes might be proposed. We are aware of the impact of reductions in operating assistance. For example, we are aware that providing capital assistance while reducing operating assistance could have a negative effect on the maintenance of federally-assisted assets. Our review of the legislation will focus on ways to avoid such potential problems.

Mr. CARR. What guidance or controls does the Federal Transit Administration place on the transit agencies in the use of the operating assistance funding?

[The information follows:]

FTA places no special controls on transit agencies in the use of operating assistance other than those described in section 9 of the Federal Transit Act, as amended. Transit agencies must follow normal grant guidelines and use funds for eligible operating expenses.

Mr. CARR. Especially among the mid and smaller sized urban areas, the different percentages represented by federal assistance are astounding. For instance, why should 69 percent of Dayton, Ohio's and 67 percent of Jacksonville, Florida's operating costs be paid by the federal government while only 3 percent of Hartford, Connecticut's and 9 percent of Lansing, Michigan's operating costs are borne by the federal government?

[The information follows:]

We must admit that you have pointed out the only problem identified with the charts developed entitled, "Federal Transit Administration—Comparison of fiscal year 1994 and fiscal year 1995 Section 9 Urban Formula Grant Program (All Areas @ 25% Reduction)," which showed the percentage of each urbanized area's total operating expenses are federally funded. In the sorting process two sets of cities got out of sequence when two data bases were sorted and merged. These are Dayton, OH and Daytona Beach, FL, and Jackson, MS and Jacksonville, FL. The corrected figures for Dayton and Daytona beach are 7.8 percent and 18.5 percent, respectively. The corrected figures for Jackson and Jacksonville are 29.8 percent and 9.7 percent, respectively. Therefore, Dayton, OH at 7.8 percent and Jacksonville, FL at 9.7 percent are in line with Hartford, CT and Lansing, MI.

Mr. CARR. Does the current formula for determining amounts of transit operating assistance accurately reflect needs across the nation? Do you have any suggested changes in the allocation of operating assistance funding?

[The information follows:]

The section 9 formula is simply designed to deliver a subsidy for transit, a subsidy which may be used either for capital investment or operating expense, except that there is a cap on the amount which may be used for operating assistance. The formula for areas over 200,000 population is based on transit system service characteristics (vehicle revenue miles, fixed guideway route miles), population, and population density. For areas under 200,000 population it is based on population and population density. We believe it is a good formula, and an excellent delivery system for the federal subsidy. There is no lapsing of funds, there is flexibility in the use of the funds, and a Governor's transfer ability is utilized. We believe the formula should be left intact.

The operating limitation, that is, the cap on the amount of the section 9 formula apportionment that each urbanized area or Governor can use for operating assistance, is based on a percentage of the urbanized area's fiscal year 1982 section 5 apportionment, with large areas receiving 80 percent of the fiscal year 1982 amount, medium 90 percent, and smaller areas 95 percent. The section 5 apportionments were based almost entirely on population and population density, unlike the newer section 9 formula which includes service factors. The operating limitation for areas which became newly urbanized under the 1980 or 1990 censuses is based on an amount equal to ⅔ of their first year's section 9 apportionment. All areas limitation amounts are pro-rated each year so that all individual caps can be accommodated within the legislatively established national operating cap. We believe it is more important at this time to focus efforts on the reallocation of funds from operating to capital assistance than to change the factors on which the individual urbanized area operating limitations are established.

COST OF ADA COMPLIANCE

Mr. CARR. Determining the true cost of compliance with the Americans with Disabilities remains a difficult task.

Based on analysis of updated paratransit plans received from transit agencies, what is your best estimate now of the cost to comply with the Americans with Disabilities Act?

[The information follows:]

Based on the plan submissions to FTA, our latest estimate on the total cost to comply, for the 1995 to 1998 period, is $932 million per year. The breakdown of these annual costs is $700 million for paratransit ($100 million for capital and $600 million for operating); $100 million in capital for key station modifications, $15 million for railcars, $64 million in capital for adding lifts/ramps to buses and vans, and $53 million in other related costs, such as lift maintenance and personnel training.

Mr. CARR. The GAO determined the average cost of a paratransit trip for the 12 agencies they visited to be $11.63. This compares with a national average of $1.75 for a fixed route service trip, according to an estimate prepared by APTA. Do both of these figures sound reasonably accurate to you?

[The information follows:]

From our rough calculations on the data provided in the 1993 updates, the $11.63 is in the ballpark for average operating costs, excluding capital (vehicle) costs. Because of missing or incomplete 1993 data, we have not been able to compute a definitive national average per trip cost. Based on 1993 update projections, we think it is around $14–15 per trip for all costs, operating and capital combined. This $14–15 per trip figure is based on $700 million a year for ADA paratransit spread over 45 to 50 million trips each year. As noted previously, these 1993 cost and trip estimates are very preliminary and subject to uncertainty and significant revision. However, in the larger cities, where most trips would occur, the $11.63 level would be low. For example, in the 1993 updates, the cost of purchased ADA paratransit transportation in Chicago was $17 per trip. In New York City, it was $29 per trip. Dallas was $21, and Boston was $19.

Based on rough calculations, APTA's $1.75 operating cost per average fixed-route trip is also in the ballpark. In 1992, based on section 15 data, total operating costs in transit were roughly $15.6 billion to provide about 8 billion trips. That is just under $2 per trip in operating costs. On a rough basis, adding vehicle and other capital costs would raise the fully allocated cost to around $2.60 per trip.

In summary, ADA paratransit service is expensive, specialized service. Using our rough calculations, there is about an $11 total cost differential between an ADA paratransit trip ($14) and a bus trip ($3).

Mr. CARR. APTA has also estimated that the additional cost to comply with provisions of the Clean Air Act will further burden transit agencies by about $57 million annually, mostly for fuel expenses. Do you agree that this is the magnitude of the impact of the Clean Air Act on transit agencies?

[The information follows:]

We estimate that fuel costs alone related to Clean Air Act compliance would be about $50 million annually due to the higher cost of low-sulfur diesel fuel as well as alternative fuels like CNG. At this point, it is probable that bus engine manufacturers will be able to certify new diesel engines as meeting the stringent 1996 particulate matter standard. If diesel engines continue to dominate the market, then APTA's estimate is reasonable. If, however, alternative-fueled vehicles gain greater acceptance, there will be significant additional costs. On the off-hand assumption that approximately half the vehicles purchased over the next five years are alternatively fueled, we estimate the incremental capital cost for bus purchases at about $50 million per year. There are also facility conversion costs even if only a small number of a city's bus fleet is converted to alternative fuels. We have not made an estimate of facility conversion costs. We would note, though, that the differential cost between conventional diesel buses and alternative-fueled buses has declined over the last few years and will probably continue to drop as more experience is gained by the manufacturers.

Mr. CARR. According to the General Accounting Office report, "Officials at 9 of the 12 transit agencies visited told us that higher paratransit costs and the absence of new funding could force them to reduce existing fixed-route service or delay planned service expansion in order to make additional funding available for paratransit service. In the absence of additional funds from federal, state, or local sources, transit agency officials said they would also have to consider options such as (1), restricting paratransit service to those persons who meet the ADA's criteria, (2), requesting a waiver to delay full compliance with the ADA, and (3), increasing fares for all service."

How likely do you think it is that transit agencies will have to resort to one or more of these options? How many transit agencies have already requested waivers from full and timely compliance with provisions of the ADA?

Are you aware of other transit agencies that may be considering requests for waivers?

[The information follows:]

From the 1993 plan update submissions, it is clear that most transit systems plan to choose the first option. In 1993, a majority of the systems planned to provide expensive paratransit services only to ADA eligible individuals, and not offer paratransit service to seniors without a disability. By 1997, based on the preliminary 1993 update data, three out of every four paratransit trips made available by these systems would be an ADA paratransit trip. These plans have not changed in the 1994 updates we have reviewed. It should be noted, however, that many of the larger systems did not offer any paratransit service at all prior to passage of the ADA. And further, it should be noted that these outyear plans are still based on very uncertain assumptions of travel demand.

With respect to waivers from the paratransit requirements, the FTA has only received two requests. At this time, the FTA is not aware of any additional or potential waiver requests. With the allowable 5-year phase-in of ADA paratransit service, a waiver should not be required. However, these waiver requests may increase as we approach the end of the 5-year phase-in of service in 1997.

Mr. CARR. Response to questions asked during last year's hearing indicated that ADA compliance costs appear to fall disproportionately on smaller transit systems. According to the PTA information, ADA compliance costs, both capital and operating, range from 2 to 6 percent for systems with populations greater than 1 million. For the smallest systems, those serving populations under 50,000, compliance costs range from 10 to 20 percent of total costs. Those smaller systems are also the ones most dependent upon Federal operating assistance. Doesn't this situation further call into question the wisdom of the administration's proposal to reduce federal operating subsidies?

[The information follows:]

No, we are proposing an increase in the amount of federal dollars that can be used for either capital or operating assistance in urbanized areas under 50,000 in population under the section 18 program.

Mr. CARR. During last year's hearing the FTA was asked what the average impact of ADA compliance would be on a transit authority's operating costs. The response was that the FTA had asked for that information, but it was not yet accumulated. One year later, has it been accumulated? Do you estimate now for the average impact of the ADA on a transit authority?

[The information follows:]

At full implementation, the FTA currently estimates total ADA operating costs to be about $653 million per year. Based on the preliminary estimates provided in the 1993 updates, ADA paratransit operating costs total $600 million. To these operating costs should be added an estimated $53 million in ADA operating costs for lift maintenance, ADA training, and other related costs.

For 1992, total industry operating costs were about $15.6 billion. Therefore, using these macro-totals, the FTA estimates that the ADA would comprise an average of about four percent of 1992 total transit costs. For small properties, however, as we reported last year, ADA paratransit costs alone can account for twenty percent of total costs. Further, it should be noted that this should not be interpreted as a full four percent operating cost increase. Many properties provided paratransit service to persons with disabilities prior to enactment of the ADA, while other properties plan to replace current paratransit service to non-ADA eligible persons with ADA paratransit service.

Mr. CARR. Under ADA guidelines, is there any limit to the number of paratransit trips an individual may request?

[The information follows:]

No, there is no ceiling or limit to the number of ADA paratransit tarps that an individual may request. The ADA is civil rights legislation, not a transportation service requirement

ENERGY INTENSIVENESS OF TRANSPORTATION MODES

Mr. CARR. The Annual report of National Transportation Statistics printed last September contains much very interesting information. The section on energy intensiveness indicates that school buses and intercity buses are among the most efficient methods of transportation, requiring 800 and 997 BTUs per passenger mile, respectively. By way of comparison, Amtrak averages 2,025 BTUs per passenger mile, motorcycles average 1,829 BTUs and cars average 3,558 BTUs per passenger mile. The most interesting aspect of the data presented is that local transit buses use more energy per passenger mile than do passenger cars. Yes, according to the data published by the Bureau of Transportation Statistics, transit buses use 3,771 BTUs per passenger mile while cars use 3,558 BTUs per passenger mile.

In addition, the trend is unmistakable and not in favor of transit buses. For example, in 1974, BTUs per passenger mile for automobile peaked at 5,085 and has shown a consistent decline to 3,558 BTUs in 1991. That contrasts with BTUs per passenger mile for transit buses which increases steadily from 2,742 in 1979 to 3,771 in 1991. In percentage terms, BTU usage in automobiles has decreased by 30 percent during the past 17 years while BTU usage in transit buses has increased by 37 percent in the past 12 years.

Do you agree that the data presented by the Bureau of Transportation Statistics are accurate?

[The information follows:]

Yes, the data should be accurate since the source for much of the BTS data is, indirectly, FTA's Section 15 program. Historically, the primary source of transportation energy data has been the Transportation Energy Data Book prepared by the Oak Ridge National Laboratory for the U.S. Department of Energy. The Data Book also uses Section 15 data, and computes the energy efficiencies of rail. The most recent version, the March 1993 edition, contains the following data:

	Passenger miles—millions	Load factor—persons/vehicle	Energy intensity—Btu per pass. mile
Intercity bus	23,000	23.2	944
Motorcycles	13,401	1.4	1,783
Intercity rail	6,057	20.1	2,609
Commuter rail	7,207	33.8	3,011
Transit rail, heavy/light	12,046	21.5	3,453
Transit bus	21,127	9.8	3,735
Automobile	2,424,592	1.6	3,739
Air carrier, cert. route	345,763	87.2	4,811
Personal trucks	444,227	1.5	6,042

This comparison is based on overall national averages. A more accurate comparison would focus on urban areas, where auto fuel efficiency is lower due to congested conditions, and on peak periods when auto occupancy is lower (1.4 rather than 1.6). Further, this analysis does not take into account the fact that transit supports more compact urban areas where less auto travel is required.

FTA staff analysis indicates that in metropolitan areas having significant rail transit services, 1,000 fewer vehicles miles are traveled per person per year. Since 88 million people live in these areas, this translates into a savings of 88 billion vehicle miles traveled per year, or 4.8 percent of the total 1.8 trillion vehicle miles traveled in 1990.

Mr. CARR. Would you agree that the data suggest that people are driving smaller and more fuel efficient cars now than 20 years ago?

[The information follows:]

Yes. From 1970 to 1990, automobile energy use per vehicle mile improved 2.2 percent per year on average, while energy use per passenger mile improved 1.9 percent per year on average. Therefore, the gains in automobile energy efficiency are the result of more fuel efficient cars.

Mr. CARR. Would you agree that the data also suggest that bus ridership is falling off, and that many buses are carrying very few passengers?

[The information follows:]

No. The energy efficiency data does not suggest that transit motor bus ridership has fallen off. Transit ridership has remained fairly constant over the past 20 years, ranging from 5.5 to 6.1 billion unlinked trips per year. Passenger miles have also remained stable, ranging from 20 to 21 billion miles traveled per year. The data does indicate, though, the effects of stable ridership combined with 1) a lack of gains, until recently, in vehicle fuel efficiency, and 2) increasing levels of service, both in vehicle hours and miles operated.

Between 1970 and 1990, transit motor bus energy use per vehicle mile increased 0.7 percent per year on average. This decrease in vehicle fuel efficiency is primarily due to greater demands placed on buses to improve service quality (air conditioning) and meet environmental and energy concerns (air emission standards and alternative fuels). However, vehicle fuel efficiencies began improving in 1989, when they increased 6 percent over the previous year. And testing of a 1994 diesel engine at the Pennsylvania Transportation Institute shows that fuel consumption of a 1994 engine delivers a fuel economy of 4.7 miles per gallon compared to 4.1 miles per gallon or less for older buses.

Energy efficiency is also dependent upon load factors, which in turn are influenced by the many variables and policies that influence transit service and ridership. The increase in commuter services (long distance routes serving suburban areas) may have led to decreased load factors since these routes typically have lower rider turnover than local, central city routes. Also, since one of the key missions of transit to provide for basic community mobility needs, service may be operated in locations and times of the day in which ridership is low.

Mr. CARR. Does the data possibly also suggest that too many transit properties continue to rely on large, full size buses when smaller, less energy intensive vehicles would be more than adequate?

[The information follows:]

The choice of vehicle type and size is a local decision. However, we are seeing a greater mix of vehicles of all types and sizes in use across the country. For example, in 1983, small buses accounted for 3.5 percent of the national bus fleet; by 1992, the small bus share had increased to 7 percent of the bus fleet. This would indicate that operators are indeed responding to diverse community needs and the concern for energy efficiency.

Mr. CARR. Is the Federal Transit Administration taking any action to address this situation and hopefully reverse the trend of the past dozen years?

[The information follows:]

FTA has and continues to support a wide range of research and technical assistance programs, policies and other initiatives designed to improve the performance of transit. For example, the 1995 budget contains $30 million for a new “livable communities” initiative that would promote transit/pedestrian-oriented development, and $250,000 to investigate an advanced technology transit bus to develop low-floor, light-weight vehicles intended to reduce the cost of operation and increase user convenience and comfort. FTA is also working to implement several new policies designed to give people greater incentive to take transit, including the cash-out policy under the global warming initiative and the congestion pricing pilot program. These and many other FTA initiatives should help increase transit ridership, vehicle performance, and service quality.

Mr. CARR. The 1993 Transit Fact Book published by the American Public Transit Association in November 1993 estimates that, based on Department of Energy data, fuel efficiency of transit compared to the average commuter automobile indicates that one bus with seven passengers equates to one automobile. Examining this data with the BTS data would seem to indicate that, on average, buses are carrying fewer than seven passengers; do you agree?

[The information follows:]

No. The average number of passenger miles per revenue vehicle mile in 1992 was 11.2. The average load factor, a statistic used to compute energy efficiency, reflects usage of transit buses over the entire day. During peak periods loads are much higher, up to 70 representing the maximum capacity. 30 percent of all transit riders never have a seat regardless of time of travel, according to the National Personal Transportation Survey.

TRANSIT COSTS AND REVENUES

Mr. CARR. The March 1994 issue of the ITE Journal contains an interesting article written by L. David Shen and Jeffrey G. Mora. Shen is an associate professor and chairman with the Department of Civil and Environmental Engineering at Florida International University. Mora is a transportation systems manager with the Federal Transit Administration. Their article includes a table showing costs and revenues per passenger mile for selected transit systems in the country. Among the large systems listed, the costs per passenger mile range from 20 cents for the Chicago system to 44 cents for the South Eastern Pennsylvania Transit Authority. Revenue per passenger mile ranges from 10 cents in Boston to 15 cents in New York City.

Does the FTA issue any guidelines to properties regarding cost and revenue per passenger mile?

[The information follows:]

No. These are local matters which reflect the results of local decisions on transit service levels, deployment patterns, fare levels, labor compensation rates, etc. The Federal Transit Act expressly prohibits FTA from regulating fare levels, or other such factors.

Mr. CARR. Why should there be a difference of more than 100 percent between the cost per passenger mile for the Chicago and Philadelphia systems?

Do you know why the Philadelphia system has such high costs per passenger mile?

[The information follows:]

We can only speculate as to the differences because we are not privy to the labor agreements, cost allocation methods, service pattern, and other fundamental cost and operations information. There are several differences between the commuter rail systems which may account in part for the cost differential:

(1) Chicago's system has bi-level equipment on all its lines, except the small fleet operated by the Northern Indiana Commuter Transportation District which services the Chicago-South Bend, Indiana corridor. The bi-level equipment has an approximate 25 percent higher seating capacity than the single level equipment used in Philadelphia;

(2) Chicago's fleet is about 85 percent unpowered coaches pulled by diesel locomotives, whereas Philadelphia's is about 85 percent self-propelled electric multiple unit coaches, which require more maintenance than unpowered coaches;

(3) Chicago's average trip distance is nearly twice Philadelphia's, which means generally a higher fare per passenger.

(4) A major part of Philadelphia's commuter rail network was shut down for three summers for major infrastructure rehabilitation—the Railworks Project. Ridership dropped on the system as a result of the disruption.

Mr. CARR. Does the FTA maintain any data on cost and revenue per passenger mile for various transit systems?

[The information follows:]

Yes, under section 15 of the Federal Transit Act, as amended, mass transit financial and operating data are reported and maintained by FTA through the uniform system of accounts and records and reporting system. Reported data are processed and published in annual publications that are available to the public. These data include transit operating statistics for passenger miles.

APTA FUNDING NEEDS SURVEY

Mr. CARR. Last month the American Public Transit Association published a document depicting transit needs for the next five years. The data is based on a summary of an APTA membership survey. It reveals an estimated average annual need for operating revenue of $22.7 billion, and an annual need for capital investment of $14.3 billion.

Are you in basic agreement with the results of the APTA needs survey?

[The information follows:]

Our 1992 section 308 Report on Transit Conditions, Performance, and Needs estimated that the capital investment required to improve transit conditions and performance was $7.5 billion per year. At this level of investment, all of the current backlog of transit investment needs could be addressed, and additional transit capacity provided to handle a share of the increased travel demand which the Federal Highway Administration estimated could not be handled by new highway construction. We are now working on our 1994 estimates, which we anticipate will be submitted to Congress this summer. We expect that this estimate will be substantially higher than the 1992 estimate, because of more complete treatment of recapitalization costs, and because the linkage to highway needs will be drawn more closely than in the 1992 report. We did not make an estimate of operating costs in our 1992 report, but will do so in the 1994 report. We cannot yet draw a comparison of our 1994 estimate to the APTA estimate.

Mr. CARR. In prior years, transit needs as determined by the FTA and by APTA have not been very close. Why have the estimates been so divergent? Do APTA and the FTA use different assumptions in the conduct of their needs projections?

[The information follows:]

The approaches used by FTA and APTA differ in one key respect. APTA uses a bottom-up approach which takes the results of a survey of its membership and scales the result up to be representative of transit as a whole. FTA uses a top down approach which is based on the national inventory of transit assets and services available from the section 15 data system, and other sources of information on the current conditions and performance of transit assets. FTA then assesses the costs of achieving two conditions and performance scenarios: maintaining current conditions and performance and improving conditions and performance. In both cases, FTA defines specific levels of conditions (based on characteristics of the physical condition of transit equipment and facilities) and performance (defined as a certain amount and level of service). FTA then calculates the cost of achieving these objectives. We believe that our estimates are more reliable because they are based on a defined benchmark. APTA's estimates do not use such a benchmark and thus include widely varying service levels, depending on the specific goals and plans of each system participating in the survey.

APTA'S TRANSIT RIDERSHIP INITIATIVE

Mr. CARR. The American Public Transit Association recognizes the following problems in our nation's transit systems: There are 400 million fewer transit riders in 1992 than there were in 1989; transit's market share of commuters dropped 1.2 percent from 1980 to 1990; the number of people driving by themselves to work increased by 35 percent from 1980 to 1990.

Do you agree with these statistics?

[The information follows:]

Section 15 data approximately agree with the APTA estimate. We put the decrease at about 300 million from 1989 to 1992. We attribute the decrease in patronage to the recession, in part because there were substantial increases until 1989.

Decennial census data indicate a reduction in transit's share of the commuter market of about 1.2 percentage points and that the number of people driving by themselves to work increased by 35 percent from 1980 to 1990.

However, preliminary commuter traffic flow data suggest that since 1970 transit has sharply increased patronage among commuters who reside in suburban areas and work in central cities. In so doing, transit has approximately retained its share of this important, and often congested, traffic flow between residential suburbs and central city economic activities.

Mr. CARR. Is the FTA taking any active role in APTA's transit ridership initiative?

[The information follows:]

FTA has been discussing with APTA ways in which FTA could support the APTA ridership initiative. Financial constraints in FTA's research budget have been a factor in those discussions.

Mr. CARR. Press reports have indicated the FTA intends to help the transit industry improve ridership while providing more customer-friendly service. Does the FTA have any initiatives of its own to boost transit ridership? Is the FTA conducting any research aimed at increasing transit ridership?

[The information follows:]

Improved patronage is an outcome of FTA's capital, operating, and planning assistance programs, although by itself transit patronage is not a very good indicator of success.

FTA has completed preliminary empirical studies of the discrete functions transit provides to communities. The findings demonstrate that, in congested corridors, transit improves the travel times on parallel highways, thus reducing the need to add highway capacity.

The studies also demonstrate the diverse functions transit serves in local communities, namely congestion management, basic mobility, and making communities and metropolitan areas more livable with less dependency on automobiles.

When transit is well supported in performing its functions for the community, it produces patronage increases, and we have seen very large increases in patronage on transit rail services, for example. But patronage in and of itself is a poor indicator of whether transit is providing basic mobility for 80 million Americans without cars and for 40 million with cars who occasionally need transit as a back-up.

For managing traffic congestion, it is the ability of transit to set the pace of adjacent highways during the rush hour that counts more than patronage as such.

In making communities more livable, transit is performing well when more people are able to run errands on foot and do without that first or second car, and these are not necessarily reflected in patronage increases.

FTA is committed to increasing transit's ability to serve these functions and, in so doing, demonstrate its success through increased patronage.

HIGHWAY/TRANSIT ISSUES

Mr. CARR. During the annual meeting of the American Public Transit Association last August, the administrator made some interesting comments concerning the relative costs and benefits of automobile driving and transit systems. According to news reports of your remarks, he made the following comments: "Cars have become part of America's culture, and we need to adjust our behavior; adjustments can be made by pricing gasoline to reflect the cost of driving more closely; the country's changing tolerance toward smoking is an indication that long-held habits can be overcome. The techniques that have changed smoking habits can be used to change driving habits."

These comments make it sound as though he views driving to be some type of unethical or unhealthy behavior. Are the press reports accurate?

[The information follows:]

The above quotations are generally correct. I would like to elaborate by saying, first, that of course I do not view driving as unethical, antisocial, or unhealthy in any way whatsoever.

I believe the lack of appropriate pricing for auto use has discouraged alternative solutions. Underpriced highways result in traffic queues as predictably as underpriced consumer goods would result in queues at retail stores. If our urban areas were designed more around pedestrian access rather than automobile access, for instance, we all would be less dependent on the automobile for even the smallest errand. If congestion pricing, which the Department of Transportation is experimenting with, were assessed on congested highways, the pricing would help to regulate demand and also provide funding for alternative transit services.

Commuters are now more supportive of transit investments as they experience high quality transit and the relatively auto-independent livable communities that grow around transit stations.

Mr. CARR. What costs of driving are not being recouped with the current price of gasoline? What should be the price of gas to reflect the costs fully?

[The information follows:]

The costs of highway travel are not nearly covered by the gas tax. Few economists would dispute this fact. Federal and state motor fuel taxes are designed to pay the national cost of acquisition of rights of way, highway construction and maintenance as a national average amount. Some might argue they do not even achieve that. But direct costs are much higher in highly urbanized congested corridors and motorists driving on these highways pay the same gas tax per gallon as people who never use congested roads. The former are undercharged and the latter are overcharged. As a result, there is no incentive for motorists to avoid the more costly travel patterns.

In addition, the cost of congestion itself, essentially the lost time of all the people affected by a congested stream of traffic, is not paid by the motorist. In the absence of real pricing, the individual does not avoid costs by alternative commuting solutions and, in fact, may pay a penalty in the form of high transit fares. So, there is every incentive to drive even with the congestion.

Moreover, there are many other highway costs not paid for by the gas tax, including highway policing, emergency services, air and water pollution, and degradation of the quality of life. There are even strategic defense and other costs associated with maintaining the international flow of oil to support our auto culture that are not reflected in gas taxes.

If all these costs were captured by the gas tax or a combination of emission fees, congestion pricing, road tolls (for higher direct costs), gas taxes, cashed-out parking benefits, and other prices related to auto use, people would make more discriminating use of their autos, thereby saving money for themselves and resulting in more economical use of our resources and environment. In such a market-oriented world, of course, transit would be competing equally and would perform accordingly.

Mr. CARR. In its most basic form, do you view transit as a means of transportation or as a tool for social engineering?

[The information follows:]

Transit has never been a tool for social engineering and few see transit that way. Transit grew up, and continues to grow, from the demand for the efficient and inexpensive movement of large numbers of people in congested corridors and pedestrian-oriented cities and for basic mobility for people without cars. Transit has achieved its successes in transportation markets in which transit is extremely disadvantaged by implicit subsidies to auto use. The employer paid tax-free parking program by itself is a subsidy that far exceeds total public subsidies to transit.

The case for social engineering might more effectively be made for highways and complex financial and institutional support with which we have harmed urban neighborhoods and subsidized the growth of suburban areas at the expense of central cities.

ATLANTA OLYMPICS

Mr. CARR. The summer Olympics will be held in Atlanta, Georgia. The local transit authority, MARTA, estimates that it may need up to 2,000 additional buses for a four to six week period at the time of the Olympics to meet the increased demand.

Can you please bring the Committee up to date on this issue?

[The information follows:]

Since January 1994, the administrator met with the largest transit agencies in the country, transit bus and equipment manufacturers, and transit unions asking for their support in providing 2,000 new and nearly new buses for the Olympics. Five hundred of the buses would remain in Atlanta for the Paralympic Games that follow the Olympics by two weeks. The response was overwhelming with agencies making pledges to provide buses; the manufacturers forming an Olympic Task Force to support the bus program; and transit unions pledging cooperation and support on labor issues. The administrator in the process of obtaining firm commitments from transit agencies. The responses have been outstanding, and we do not anticipate any problems in obtaining commitments for the 2,000 buses.

Mr. CARR. What do you see as the biggest stumbling block to working out a solution? Is it the liability issue?

[The information follows:]

We do not see any major stumbling blocks. The Atlanta Committee for the Olympic Games will take out liability insurance to cover the buses during the Olympic Games.

Mr. CARR. What is the estimated cost to the federal government of a program to loan buses to Atlanta for the Olympics?

[The information follows:]

The estimated cost to the federal government is approximately $16 million. The funds also support the Paralympic Games in Atlanta which follows the Olympics by approximately two weeks. The funds will pay for transportation of the buses to and from Atlanta, preparation and cleanup costs before and after, and administrative costs for the Paralympic Games.

Mr. CARR. Is there anything in the 1995 budget for the Federal Transit Administration dealing with the Atlanta 1996 bus issue?

[The information follows:]

There is no request in the 1995 budget to support cost associated with providing 2,000 buses for the Olympics.

FUNDING FLEXIBILITY UNDER ISTEA

Mr. CARR. The U.S. General Accounting Office has concluded that the use of ISTEA's flexibility provisions has been limited. Do you agree with this assessment?

[The information follows:]

No, we don't think the use of ISTEA's flexibility provisions has been limited.

As of March 31, 1994, $1,031.4 million has been transferred to FTA to fund 269 transit projects in 42 states. Of this amount, $877.3 million has been obligated. These obligations represent 248 projects in 40 states. FTA estimates that by the end of fiscal year 1994 more than $1.2 billion in highway authorizations will have been made available for transit projects, of which more than $1 billion will have been obligated by FTA. A summary of the transfers follows:

TRANSFERS FOR TRANSIT PROJECTS—AS OF MARCH 31, 1994

[In millions of dollars]

Fiscal year	CMAQ	STP	Interstate transfer	FHWA earmarks	FAUS	Total
1992	177.0	25.2	100.0	1.4	0.2	303.8
1993	298.4	146.9	0.1	23.8	0.0	469.2
1994	168.0	80.7	0.0	9.7	0.0	258.4
Total	643.4	252.8	100.1	34.9	0.2	1,031.4

Mr. CARR. In each of fiscal years 1992 and 1993, how much funding did the states use of highway funds for mass transit or non-traditional projects?

[The information follows:]

In fiscal year 1992, $303.8 million was transferred to FTA for transit projects; $469.2 million was transferred in fiscal year 1993.

Mr. CARR. Do you think this represents a commitment to transit and intermodal transportation as much as the realization that there was no other way to spend the CMAQ funding?

[The information follows:]

We are encouraged by the use of these funds, and expect an increase in transfers to FTA for transit projects as local transit needs become known.

Mr. CARR. What is the total amount of transit funding that has been transferred to highway projects since the passage of ISTEA?

[The information follows:]

Due to the high ongoing demand for transit funds, none of the available funds has been transferred from FTA for highway related activities.

Mr. CARR. How many states have either laws, regulations or other procedures that preclude the flexible use of funds between highways and transit projects?

[The information follows:]

We do not have information on how many states have laws, regulations or other procedures that preclude flexing funds between highway and transit projects. While all these constraints would affect the ability of state and local officials to flex federal funds, it is our opinion that the larger issue is the availability of dedicated state revenues that could be used for both highways and transit. States are more likely to be even handed in assessing projects for flexible funding if the local match is available from dedicated state revenues for any type of transportation investment. Currently, 29 states have dedicated state highway user revenues which may be used only for highway projects; while in only 21 states may dedicated highway revenues be used for transit or highway purposes.

Mr. CARR. Does the FTA have any organized effort to assist the states with understanding the flexibility provisions of ISTEA? In other words, do you think you are doing enough to educate the states on exactly what their options are?

[The information follows:]

The FTA has been aggressively assisting all the major players (states, metropolitan planning organizations, and transit operators) that determine project funding sources, including utilization of the flexibility provisions of the ISTEA.

For the past three years, the FTA has issued "Flexible Funding Opportunities for Transit". This pamphlet has been distributed to all states, metropolitan planning organizations (MPOs), and transit operators throughout the nation. The pamphlet provides a state-by-state summation of available flexible funds for the current fiscal year as well as project eligibility information. The most recent pamphlet also provided ten abbreviated case studies which identified the factors/strategies employed to access flexible funds.

The ten FTA regional offices convene annual workshops with grantees (states and transit operators). A consistent agenda item has been the flexibility provisions of the ISTEA and what these options are. FTA has a joint working agreement with the American Public Transit Association to sponsor a series of workshops throughout the nation for the transit community and non-traditional transportation providers on federal planning and programming policies and procedures, and on the flexible programs themselves.

Mr. CARR. Information supplied to the Committee by FHWA in response to questions asked during our hearings last year indicated the following uses of highway funding for transit or non-traditional projects: California, CMAQ, Operating assistance $2,740,100, Connecticut, CMAQ, Bridge replacement $14.173 million, New Jersey, STP, Historic rail station, $4 million, Ohio, CMAQ, Bicycle storage lockers, $650,000, Virginia, CMAQ, Commuter rail station expansion, $4.508 million.

Do you think buying bicycle storage lockers should be a legitimate expense for congestion mitigation activities?

[The information follows:]

Bicycle facility improvements are specifically authorized by ISTEA as eligible for funding under the Congestion Mitigation and Air Quality Improvement (CMAQ) program. Based on the statutory language, neither FHWA nor FTA may disallow the use of CMAQ funds for bicycle promotion activities. There is, however, a wide array of opinion concerning the congestion relief benefits of such projects. In our view—a view which is shared by several national environmental organizations—bicycle improvements at transit stations are legitimate candidates for CMAQ funding if residential development in an area is sufficiently dense to make bicycling to a transit station an attractive alternative. We would also support this use of CMAQ funds if the area did not yet have sufficient density but had adopted land-use plans and zoning to create denser development around stations.

Mr. CARR. Are you aware of any states other than California that use CMAQ funding for operating assistance?

[The information follows:]

Guidance issued by FHWA and FTA for the CMAQ program (October 16, 1992) allows CMAQ funding for transit operating costs in very limited cases. Only new or significantly enhanced service qualifies and the guidance places a two-year limit on eligible transit operating costs. Nationwide, there have been very few grants approved utilizing CMAQ funds for transit operations. This is due to the fact that the CMAQ guidance does not allow existing costs to be displaced by CMAQ funds and also does not allow a deeper subsidy of existing operations with CMAQ funds. We are aware of CMAQ-funded projects involving new transit service in New Jersey, Minnesota, and Rhode Island in addition to California.

Mr. CARR. What oversight does the FTA perform regarding the approval of projects using the flexible funding provisions of ISTEA?

[The information follows:]

FTA's oversight of flexible funding requests occurs during the review of the state transportation improvement program and metropolitan transportation improvement program, at which time we evaluate the eligibility of proposed projects for funding. While we do not advocate that any specific project utilize flexible funding, we do encourage transit agencies to seek flexible funding rather than rely on unrealistic expectations regarding the availability of section 3 discretionary funds. With respect to the CMAQ program, there are special eligibility considerations related to air quality improvement which are handled at the STIP/TIP review stage. Once a project is transferred to FTA under the transfer procedures we have established with FHWA, the project must meet all applicable requirements of the Federal Transit Act and is administered by FTA according to section 9 or section 18 program requirements.

Mr. CARR. What impact will recent changes in federal transportation planning regulations have on the use of ISTEA's flexibility of funds provisions and how will the Department of Transportation ensure that states and localities jointly cooperate in making the decisions required in these regulations?

[The information follows:]

The joint FHWA/FTA statewide and metropolitan planning regulations, issued on October 28, 1993, were carefully structured to emphasize and promote the flexibility provisions of ISTEA. This levels the playing field since highway and transit projects are now subject to the same process. The regulations require that specific sources of funding be identified to implement projects contained in the transportation improvement programs at the metropolitan and statewide levels. This requirement, together with the publication issued annually by FTA on "Flexible Funding Opportunities for Transit", ensures that the state and local officials are well aware of the opportunities for flexible use of highway and transit funds, and are making plan and program decisions in a manner unbiased by federal program structure and administration.

We intend to review the actual implementation of these provisions as part of our joint administration of the ongoing comprehensive transportation planning process. States and metropolitan planning organizations are required to self certify that the metropolitan planning process is being conducted in accordance with all applicable requirements. In addition, in transportation management areas, FTA and FHWA must themselves jointly certify, no less often than once every three years, that the process is being carried out in accordance with all applicable requirements. As part of this ongoing oversight and certification action, we will determine if states and localities are indeed cooperating in making the decisions in the objective and open way envisioned in the joint planning regulations.

METROPOLITAN PLANNING ORGANIZATIONS

Mr. CARR. Last year's budget submission included a one-time provision that would have allowed metropolitan planning organizations to receive additional funding to deal with additional responsibilities required by ISTEA and other factors. The House bill as reported by the Committee contained that provision, but it was struck by a point of order raised by the Chairman of the authorization committee on the House Floor. That provision has not been renewed in the 1995 budget submission; is that correct?

[The information follows:]

Yes, that is correct.

Mr. CARR. Are MPOs having a difficult time without the additional funding, or have they had to tap other resources to make up shortfalls?

[The information follows:]

FTA staff has spoken with MPO executive directors and their staffs at the nine national outreach meetings conducted to explain the joint FTA and FHWA statewide and metropolitan planning regulations, the EPA conformity regulation, and the management systems interim final rule. Though it is too soon to determine the full effect of implementing the new planning regulations, we do know that the costs of air emissions analyses, financial planning, major investment studies and expanded public involvement processes are primary financial concerns for MPOs and states. At the present time we believe that FTA planning funding in conjunction with increased FHWA funding provides sufficient resources to carry out the mandates of the regulations.

Mr. CARR. Acting Administrator McManus' statement last year included the following observation: "Without question, the transportation planning requirements in the Clean Air Act—particularly the new air quality conformity requirements—are straining the budgets of many metropolitan planning organizations. The MPOs must have augmented funding in order to meet these new requirements."

The conformity regulation and the mission planning regulation were both issued last autumn. What has been the effect on the MPOs, especially in the absence of the augmented funding?

[The information follows:]

The planning and conformity regulations have placed substantial new requirements on MPOs. MPOs, in cooperation with the other transportation agencies, are now expected to develop transportation plans and programs for metropolitan areas of the nation and to evaluate the projects therein in terms of the planning factors listed in ISTEA; assess air quality impacts of future transportation scenarios using highly detailed and sophisticated transportation computer models; participate in the design and development of the various management systems; broker the negotiations for flexible funds among the numerous agencies and other interests involved; and reach out to the public in a manner that results in meaningful public involvement in the transportation planning process. However, ISTEA anticipated these demands on MPOs and authorized an increased level of planning funds for MPOs from both FHWA ("P.L. funds") and FTA (section 8 funds). Actual appropriations have resulted in dramatic increases in PL funding for MPOs, while Section 8 appropriations have resulted in more modest increases. To date, however, the combined funding levels for MPOs have been deemed as adequate since both FHWA and FTA have managed these funds as fungible resources. In addition, ISTEA expanded the eligible activities of several capital funding programs to include planning functions, and some MPOs are considering requesting additional funding from these flexible title 23 sources.

We, together with FHWA, plan to monitor carefully the implementation of these requirements as part of our joint stewardship of the ongoing transportation planning process, and will make appropriate recommendations for funding these activities in future budget requests.

Mr. CARR. Do you see any improvements in statewide transportation investment decisions as a result of the conformity and mission planning regulations?

[The information follows:]

While it is difficult to identify specific improvements in investment decisions at the project level at this early stage in the statewide transportation planning process, we are none-the-less quite confident that the requirement for a coordinated, comprehensive, and cooperative process at the state level will result in greatly improved decisionmaking, particularly with respect to the use of flexible funding resources. We plan to carefully monitor the implementation of these requirements at both the metropolitan and statewide levels to ensure that local decisionmakers are being provided the information necessary to make informed decisions regarding the use of limited transportation resources. To a large degree we will depend on the active involvement of the public to ensure that a full range of options are actually analyzed and the relative merits of various alternative forms of transportation are evaluated. This will lead to the selection of the most cost effective and environmentally sensitive transportation projects for implementation, and will appropriately focus the decisionmaking responsibility at the state and local level.

We can say at this time that the vastly increased amount of flexible funding delivered by FHWA through the states for public transportation facilities is an indication of more serious consideration being given to a full range of alternatives during MPO and state planning and programming.

RIDERSHIP PROJECTIONS

Mr. CARR. During last year's hearing we had a discussion of ridership projections, and the problems caused by many of the first estimates being so promotional in nature. The Acting Administrator indicated the FTA was collaborating with the Federal Highway Administration and the Environmental Protection Agency and the Office of the Secretary of Transportation in a project to improve the state of the art in demand forecasting.

What is the status of this effort?

[The information follows:]

The FTA, FHWA, EPA, and the Office of the Secretary have continually been working together to improve the travel demand models to develop more useful tools for travel demand forecasting and Clean Air Act conformity. As part of this effort, the cooperating agencies have selected the Los Alamos National Laboratory and have each allocated funding for the development of advanced travel demand models known as the Transportation Analysis and Simulation System (TRANSIMS). The project is intended to be completed over the next five years at a total cost of $27 million between the cooperating agencies.

The result will be a travel demand model much more sensitive to complex travel decisions because it will model the behavior of each individual traveler, instead of the current approach of modeling the behavior of groups of travelers in a system. This will lead to a much more effective way to estimate transit riders and the impacts of a broad variety of transportation emission control measures.

Mr. CARR. We also discussed whether it might be time for the Volpe Transportation Center to do an update to the Pickrell Report issued in 1990. Do you have any thoughts on the matter?

[The information follows:]

The FTA has taken steps to address the recommendations of the 1990 Pickerell Report. We have updated our project planning guidance manual and created other planning process guidance. This guidance, in part, advocates better quality control at the local level during planning studies through such means as peer reviews of the forecasting methods used. FTA has also developed technical reports, training, a manual of best practices, and other assistance for cities planning new start projects.

While these efforts have been substantial and should result in better forecasts of ridership and costs, none of the projects developed with these revised procedures has yet become operational. Thus, an update to the Pickrell Report would be premature at this time. If such an update were to be undertaken, we would urge that it be broader in scope so as to include other related types of infrastructure investments in addition to transit.

TRANSIMS

Mr. CARR. The Federal Highway Administration is the lead agency on a research effort with the Los Alamos National Laboratory called Transportation Analysis and Simulation System, or TRANSIMS. What has been the involvement of the Federal Transit Administration to date in the TRANSIMS effort?

[The information follows:]

FTA has been working closely with FHWA and OST in both monitoring progress to date and developing a work program for future work. FTA will continue to be involved in the project by contributing to its funding, helping to manage the work, and insuring that the models developed can accurately estimate transit ridership.

Mr. CARR. Was the FTA consulted on the merits of the TRANSIMS project before the first contract was awarded?

[The information follows:]

Yes, FTA staff reviewed the first year's work and reviewed the proposal with FHWA and OST and found it was a sound methodology. Therefore, we concurred in the decision to award the contract and are in the process of contributing follow-up funding.

Mr. CARR. What is the status of, and FTA involvement in, the strategic plan for the next generation of modeling techniques?

[The information follows:]

FTA has been deeply involved in the strategic plan for the next generation of modeling techniques. We have been working with the other agencies in the Department of Transportation, the Department of Energy, and the Environmental Protection Agency on the Transportation Model Improvement Program (TMIP). The TRANSIMS project is one component of the overall strategic TMIP effort to coordinate transportation, air quality, energy, economic growth, and land-use planning per the intent of ISTEA.

GRANTS MANAGEMENT OVERSIGHT

Mr. CARR. The Office of Management and Budget again lists the Federal Transit Administration's grants management oversight as high risk and inadequate. With $35 billion in active grants, OMB figures $300 to $500 million is at risk. However, the OMB does mention some improvements were made last year.

What is your assessment of the improvement made in 1993?

[The information follows:]

FTA has greatly and effectively improved our oversight in the grants management area. For example, we are mid-year in the second year of the grantee risk determination process that assesses the relative risk of each grantee's potential noncompliance with statutory and administrative program requirements. Through this process, regional officials and staff must annually review each grantee and complete a risk assessment form to determine the rating for each grantee and develop a grantee oversight plan. This is a very substantive action to effectively reduce the degree of risk associate with grants management. Additionally, FTA has greatly improved the triennial review process with the development of a triennial review handbook that can be used by both contractors and regional staff. The handbook addressees many of the concerns of the OIG, GAO and others by providing for the sampling and testing in areas such as competitive procurement, inventory control and maintenance. Additionally, FTA had dedicated more than 40 regional staff and the equivalent of more than 79 full time employees in contractor assistance to our oversight functions.

Mr. CARR. Is the FTA on schedule to transmit revised single audit compliance requirements to OMB this month? Will they be issued in July? How much oversight assistance do you think the single audit compliance requirements will provide?

[The information follows:]

The single audit requirements for FTA were transmitted to OMB on February 3, 1994. OMB plans to issue the revised compliance requirements in July. We believe that while the revised compliance requirements are a vast improvement over those currently in use, there remains concern that the A–128 single audit may not provide the level of oversight assistance necessary for grants management. However, the Office of Inspector General continues to work on improving oversight of the quality of the single annual audits and we believe these efforts will provide further improvements.

Mr. CARR. How far along are you with the organization-wide structural and procedural changes planned to be implemented? When will you finish this effort?

[The information follows:]

On April 13 an organizational review task force was established responsible for developing restructuring/reprogramming proposals in accordance with the FTA strategic planning goals for the National Performance Review. This group expects to spend up to 50 percent of its time on this assignment and provide me with a finished project within 120 days. The group has commenced its activities and will address the allocation of resources among oversight and other activities of the agency.

Mr. CARR. Last year's testimony indicated that the FTA has 10 active project management oversight contracts costing about $10 million annually monitoring about $27 billion in projects, correct? Are any of the firms performing contract management oversight for the FTA also under contract with the FTA for the design, engineering or construction of any FTA project?

[The information follows:]

Under the recent procurement, FTA currently has 14 active project management oversight contracts costing about $10 million annually monitoring approximately $27 billion in projects. FTA does not have any direct contracts to design any federally funded projects. Most of the firms providing PMO services to FTA do provide engineering services for FTA funded projects. However, FTA avoids any conflicts or potential conflicts of interest with any of its PMO contractors and grantees. Conflicts of interest are prohibited under federal guidelines and avoided by assigning PMO contractors to only those grantees with whom they have no current contracts. If a conflict is found after the initial assignment, FTA selects another contractor from its group of 14 PMO contractors to replace the contractor in conflict.

Mr. CARR. According to the Acting Administrator's statement last year, the FTA now has a risk assessment program that requires the regional staff to rank each grantee annually as potentially high, medium or low. For the past year, how many grantees were ranked with potentially high risk?

[The information follows:]

The FTA risk assessment program was established in fiscal year 1993 for the purpose of enabling FTA to identify the degree of potential risk that each grantee poses to the overall integrity of FTA programs. The program acts as an umbrella in that it is used to identify and develop a grantee oversight plan that recognizes and assigns a potential risk rating to each grantee. In fiscal year 1993, 48 grantees were ranked as potentially high risk while in fiscal year 1994, 58 grantees were so ranked.

Mr. CARR. What factors are considered in the risk assessment?

[The information follows:]

The risk assessment form is categorized to present questions regarding risk factors in financial, technical, procurement, inventory and other management controls to differentiate potential grantee noncompliance with Federal requirements or improper use of grant funds. Regional officials and staff complete a risk determination form for each grantee. This involves performing a thorough review and analyses of information relating to each grantee such as the size and complexity of the transportation improvement program or project that the grantee has or will have underway as well as the amount of Federal funds vested with the grantee.

The information gleaned from each oversight activity includes the results of audits conducted by the Office of the Inspector General, General Accounting Office, state, internal, A128 and/or any other relevant report(s). The review includes reports from triennial reviews, project management oversight, financial management oversight, procurement and safety reviews and grantee financial and quarterly reports. Other sources such as grant applications, site visit reports, media reports and grantee minutes of meetings are also reviewed.

Mr. CARR. How many grantees received a worse risk assessment this year than last year?

[The information follows:]

Risk assessment of each grantee is a continuous, ongoing process and subject to reevaluation throughout the program year to determine that the risk assessment remains appropriate. Since grantee risk evaluations are done a minimum of three times a year, it is not unusual for a grantee to fluctuate between rankings. At the end of last fiscal year 48 grantees were ranked as potentially high risk while 58 are so ranked mid year of this fiscal year.

Mr. CARR. What technical or other assistance does the FTA provide to those grantees with either high or worsening risk?

[The information follows:]

In the event that a grantee is ranked potentially high risk or receives a worsening risk ranking, a triennial review or a special audit may be performed. If the grantee management deficiency is known, outside contractors with specialized expertise will be called upon to provide technical assistance to the grantee in areas such as: project management, financial management, procurement, safety or civil rights.

Mr. CARR. For the record provide a list showing the risk assessments of all grantees ranked by the FTA.

[The information follows:]

[CLERK'S NOTE.—The requested information was not provided in time to be printed in the record.]

FEDERAL TRANSIT ADMINISTRATION STRATEGIC PLAN

Mr. CARR. What is the status of the strategic plan under development in the Federal Transit Administration?

[The information follows:]

FTA began its strategic planning process in November 1993. Since that time all employees have been involved in the process in a series of outreach sessions either as members of cross-cutting teams or as contributors through office teams. Agency vision and mission statements have been developed. Our next task is to prioritize our vision strategies, action objectives, and performance measurements. This should be completed by mid-May and to print shortly thereafter.

Mr. CARR. How do the goals of the FTA's strategic plan mesh with the Department's strategic plan unveiled earlier this year?

[The information follows:]

With the issuance of the FTA strategic plan, the future direction of FTA and how that supports the seven goals of the Department's plan will be described. Not only are we ready to meet the challenges that have been laid out by the Secretary, but we are already taking a leadership role in making many of them happen.

One of the tools that will help us achieve these goals is our own agency's strategic planning process. It will be a very adaptable tool that can help us change as our programs and the factors affecting them change as well.

The Secretary has asked all the administrations to develop action plans that identify milestones for reaching the goals in the Department's strategic plan. Although we are in the process of developing our strategic plan, it generally appears that many of the goals and actions called for in the Department's plan are already addressed in our draft documents.

Mr. CARR. Is the fiscal year 1995 budget submitted in February divergent in any significant way from the Federal Transit Administration's new strategic goals?

[The information follows:]

No. The fiscal year 1995 budget request for the highest overall funding level in FTA history will help us implement the FTA strategic plan by improving the lives of our customers—from transit riders to grantees. Our budget and our strategic plan is strong in infrastructure investment for economic growth and job creation.

TASMAN CORRIDOR PROJECT LOI

Mr. CARR. Mr. Administrator, on March 14 you sent notice to the Congress of your plan to send a letter of intent (LOI) to fund the Tasman Corridor project to Santa Clara County. Why did you decide to send an LOI for the Tasman project at this time?

[The information follows:]

Section 3032(c) of ISTEA states that ". . . not later than 90 days after the date of completion by [Santa Clara County Transit District] SCCTD of preliminary engineering, the Secretary shall . . . execute a multiyear grant agreement . . . with SCCTD for the construction of the Tasman Corridor Project".

FTA and SCCTD began negotiations on a full funding grant agreement (FFGA) for the project in July 1993. However, final execution of the FFGA must await a decision by the California Supreme Court on the constitutionality of the 1992 ½ cent sales tax that would provide half of the 50 percent local share for the project. A court decision is not expected before March 1995.

Because of the legal difficulties with the project's non-federal financing, FTA decided to issue an LOI to indicate to the Congress our intent to meet the ISTEA mandate.

Mr. CARR. Didn't the California State Court of Appeals strike down the proposed sales tax that Santa Clara County was counting on to provide the necessary non-federal revenues?

[The information follows:]

Measure A, the ½ cent sales tax that would provide half of the 50 percent local share for the Tasman Corridor Project, was invalidated by the Sixth District Court of Appeals on November 10, 1993. However, in February, the State Supreme Court agreed to review Measure A on appeal. Santa Clara County Transit District seeks a favorable ruling prior to the new tax's effective date of April 1, 1995, to enable it to execute a full funding grant agreement by June 1995.

Mr. CARR. Isn't it true that at this time Santa Clara County has not yet developed an alternative financing scheme, and that, in the words of the draft letter of intent, "several financial concerns must be resolved before a full funding grant agreement can be executed?"

[The information follows:]

Yes. A full funding grant agreement cannot be executed until either the validity of Measure A is established, or an alternative local funding source is identified.

Mr. CARR. With all the uncertainty currently surrounding the Tasman project, why is there such a rush to send a letter of intent to Santa Clara County?

[The information follows:]

There has been no rush to issue a Letter of Intent (LOI) for the Tasman Corridor Project. The purpose of the LOI is to inform the Congress of FTA's intent to carry out the provisions of ISTEA, once the financial capacity issue associated with the sales tax challenge has been satisfactorily resolved. Except for the court challenge, FTA would proceed immediately to conclude negotiations on and issue a full funding grant agreement for the project.

The LOI provision was introduced in FTA's authorizing legislation some years ago to provide a formal vehicle for FTA to notify the Congress of the administration's intent to obligate funds under an existing authorization, subject to appropriations. The total amount of LOI's cannot exceed the current authorization for new starts project.

LETTERS OF INTENT FOR SECTION 3 PROJECTS

Mr. CARR. How many letters of intent has the Federal Transit Administration issued in the past ten years?

[The information follows:]

Three letters of intent have been issued over the past ten years:

Project	Date	Amount (millions)
Tasman Corridor	4/14/94	$179.3
San Jose LRT	3/30/84	183.8
Tri-Met LRT	9/30/91	1.0

Mr. CARR. Haven't several projects, including those in Los Angeles, Dallas, New York, and St. Louis, received full funding grant agreements without first having received a letter of intent?

[The information follows:]

Yes. However, a letter of intent (LOI) is not needed for every full funding grant agreement (FFGA). In fact, in the majority of cases, the FTA does not need to use this provision of ISTEA. An LOI is an intermediate step in the project development process, available for use prior to award of an FFGA should circumstances warrant.

Mr. CARR. Of the ten projects in the preliminary engineering stage as profiled in last year's section 30(j) report, why was the Tasman project the only one singled out for a letter of intent?

[The information follows:]

Of the projects listed in the May 1993 3(j) Report as being in the preliminary engineering stage of project development—Baltimore/LRT Extensions; Chicago/Central; Honolulu/Rapid Transit; Houston/Regional Bus; Orange County/Transitway; Pittsburgh/Busway Extension; Salt Lake City/South LRT; and the San Francisco/BART Airport Extension and Tasman Corridor Projects—only the Tasman Project has reached the appropriate level of project development to allow for the issuance of a letter of intent.

Mr. CARR. As a practical matter, the letter of intent for the Tasman project has no intrinsic value; isn't that correct? In other words, the project could proceed to a full funding grant agreement and receive additional federal funding without the letter of intent, could it not? Conversely, the project could get the LOI, but not get its financial problems resolved, not get a full funding grant agreement, and might not receive additional federal funding, correct?

[The information follows:]

It is certainly possible that the Tasman Corridor Project could eventually proceed to a full funding grant agreement and concommitant federal funding without an LOI. It is also possible that future financial capacity problems could result in the lack of an approvable project. However, this by no means indicates that the letter of intent has no intrinsic value.

As stated earlier, the LOI provision was introduced in FTA's authorizing legislation some years ago to provide a formal vehicle for FTA to notify the Congress of the Administration's intent to obligate funds under an existing authorization, subject to appropriations. In addition, the LOI is a notice to the transit agency and to the Metropolitan Transportation Commission (the metropolitan planning organization in San Francisco that programs federal transit funds and flexible title 23 funds for the area) that a certain level of section 3 new start funding can be expected. This notification allows the agency to seek additional funding from flexible title 23 or other funding resources, if necessary, and to scope the project accordingly during subsequent phases of project development.

Mr. CARR. Isn't the bottom line on this and other letters of intent that they are not required by law or regulation, they do not commit the government to providing additional funding, they have little or no value in the bond markets, and about all they do is further raise the expectations of project proponents and sponsors?

[The information follows:]

Section 3(a)(4) of the Federal Transit Act authorizes the Secretary of Transportation to announce an intention to obligate for a project under this section through the issuance of a letter of intent (LOI) to the applicant. An LOI is not an obligation nor is it an administrative commitment. It is an announcement of intent to obligate from future available budget authority specified in law. The purpose of an LOI is to notify Congress of the intent of the Executive branch to commit authorization. As such, the Secretary is required to notify Congress in writing at least thirty days prior to the proposed issuance of a LOI. A letter of intent also notifies the transit agency and local authorities that a certain level of Section 3 new start funding can be expected. This notification allows the agency to seek additional funding from other resources, if necessary, and to scope the project accordingly during subsequent phases of project development.

Mr. CARR. Your letter of March 14 contains a very interesting statement. The final paragraph reads as follows: "The LOI to be issued for the Tasman project will be for the final project approved under procedures currently in place. All future projects will be subject to the President's Infrastructure Executive Order which takes effect March 15, 1994."

Does this mean if the notice for the letter of intent had not been sent on March 14, 1994, that the Tasman project would also be subject to the provisions of the President's Infrastructure Executive Order?

[The information follows:]

No, the kind of project evaluation called for in the President's Infrastructure Executive Order is performed during the planning, preliminary engineering and environmental assessment of the proposed project. Because the Tasman project had completed these steps and a record of decision had been issued, it would not be subject to reevaluation under the provisions of the Executive Order even if the notice for the letter of intent had been sent after March 15, 1994.

Mr. CARR. Could the Tasman project qualify for federal funding under the terms of the President's new Executive Order?

[The information follows:]

The Executive Order called for the development of plans for its implementation by March 15, 1994. FTA's plans for implementation call for an updating of our new starts evaluation approach to explicitly reflect a broader array of criteria. It is not possible to know specifically how the Tasman project would fare under the new broader criteria, however, it is likely that its relative federal investment merit in terms of the new criteria would not be substantially different from that in terms of the existing FTA criteria.

Mr. CARR. The Executive Order specifically states that each agency is to use the principles contained in the Order to justify major infrastructure investment programs, beginning with the fiscal year 1996 budget submission. How do you respond to the observation that the letter of intent appears to be an attempt to exempt the Tasman project from the more stringent criteria embodied in the President's new Executive Order?

[The information follows:]

FTA's rationale for issuing a letter of intent for the Tasman project can be found on pages 19 and 20 of the fiscal year 1995 *Report on Funding Levels and Allocations of Funds* (Section 3(j) Report). In summary, the project is part of a Program of Interrelated Projects for which the section 3 share is less than 30 percent. The significant degree of local financial support for transit is a major reason for FTA's support of the project. Because the Section 3 share is less than ⅓, the program of projects is exempt from the new start criteria contained in Section 3(i) of the Federal Transit Act. In addition, Section 3032(c)(1) of ISTEA specifically directs the Secretary to approve the construction of the locally preferred alternative for the Tasman Corridor Project.

FULL FUNDING GRANT AGREEMENTS

Mr. CARR. The administration's proposed 1995 budget for the section 3 discretionary program includes funds only for those projects that have already entered into full funding grant agreements with the Federal Transit Administration. Apparently, this is to be the administration's new litmus test. Only those projects that have such agreements will be included for funding in future budget requests; is that correct?

[The information follows:]

Not necessarily. The principles for allocating new start funds among the various new start projects seeking funding are laid out in the Department's "Report on Funding Levels and Allocations of Funds" issued April 7, 1994, as required by Section 3(j) of the Federal Transit Act. These principles establish first priority for projects with existing or pending full funding grant agreements (FFGA). Once existing commitments are fulfilled, we would consider other projects that meet the project justification, finance, and process criteria established by section 3(i) of the Federal Transit Act.

Mr. CARR. Several projects are either in the process or about to begin the process of negotiating full funding grant agreements. How will the FTA decide which projects should be considered first and be candidates for agreements?

[The information follows:]

The decision as to which projects would be considered first as candidates for FFGAs will depend on each project's progress in the development process, and its relative merits under the criteria laid out in section 3(i) of the Federal Transit Act.

Mr. CARR. Does the Federal Transit Administration have any strategic plan for the consideration of full funding grant agreements, based either on geography, or demographics, or cost benefit analysis, or other factors?

[The information follows:]

Again, the principles set forth in the section 3(j) report establish the basis and priorities for issuance of full funding grant agreements. Any project being considered for a FFGA should meet the project criteria established by section 3(i). Further, firm funding commitments, embodied in FFGAs, should not be made until preliminary engineering is completed, including completion of the final environmental impact statement, since costs, benefits, and impacts are not accurately known until this level of engineering has been completed. Funding should be provided to the best projects, in terms of cost-effectiveness, financial commitment, and other justification criteria, in an order which is based on the degree to which each project meets these criteria, and allows these projects to proceed through the process on a reasonable schedule.

Mr. CARR. What is the FTA schedule for negotiating full funding grant agreements for the balance of fiscal year 1994 and for fiscal year 1995? Indicate by project and by anticipated negotiation start and finish dates.

[The information follows:]

In addition to making recommendations for fiscal year 1995 new start funding, the April 7, 1994 Section 3(j) report goes beyond this to indicate which projects are on the horizon for funding commitments. Eight projects are listed in the report as candidates for full funding grant agreements (FFGAs) and letters of intent (LOIs). They are:

FFGA Candidates: Baltimore/LRT Extensions; Houston/Regional Bus; New Jersey/Urban Core; Pittsburgh/Busways.

LOI Candidates: Boston/Piers; Chicago/Central Area Circulator; Dallas/RAIL TRAN; San Francisco/Airport & Tasman.

Discussions have begun with all of the candidates for FFGAs. We anticipate completion of FFGA negotiations by the end of calendar year 1994. It is also conceivable that other projects in the new start pipeline could reach the point of development where they would also be prepared to begin negotiation of a FFGA.

Mr. CARR. Do projects that are required by ISTEA to have full funding grant agreements entered into by certain dates receive any preferential treatment in the queue for agreement negotiations?

[The information follows:]

Virtually all of the new starts projects earmarked in ISTEA have specific dates. Most of these dates could not be met based on the project's status at the time of the legislation. We are working with all projects currently in the new starts pipeline that have completed alternatives analysis. Projects are subject to satisfying the statutory requirements, such as section 3(i), and other basic requirements, including environmental process, unless the project qualifies for exceptions to these requirements.

Mr. CARR. In previous years, many grantees received federal funding for alternatives analysis and preliminary engineering. How does the new FTA policy regarding budgeting only for those projects with full funding grant agreements affect projects in these stages of development?

[The information follows:]

FTA has always objected to using section 3 funds for alternatives analysis and preliminary engineering, even though the law permits it. We prefer grantees to use section 9 authority and flexible funds for these phases of development. This remains our policy, although it has often been overridden by congressional mandates.

LOS ANGELES METRO PROJECT

Mr. CARR. Last summer media reports surfaced indicating potential problems with the construction and safety of parts of the walls of the Los Angeles subway. It is the Committee's understanding that the reviews have been completed and no major structural or safety problems have been discovered; is that correct?

[The information follows:]

Yes. A panel of independent experts conducted a review and evaluation of the structural integrity of the operating Los Angeles subway tunnels (the Red Line). The panel concluded that the tunnels are structurally adequate and are capable, in their present condition, to support the ground loads and accommodate the anticipated ground motions imposed by the design earthquake with substantial reserve capacity.

Mr. CARR. How many feet of subway tunnel are involved in the dispute? How many feet of reinforcing steel have been added to the subway walls?

[The information follows:]

The expert panel performed a review and evaluation of the structural integrity of the entire operating Los Angeles Metro tunnels (the Red Line) which consist of 28,796 feet. The panel's review and evaluation did not result in any additional steel being added to the tunnels. Prior to the panel's work the Metropolitan Transportation Authority did place a total of 57 linear feet of steel plate in the tunnel at three locations.

Mr. CARR. Is it accurate to state, however, that design and construction specifications were not always followed in parts of the Los Angeles subway system constructed several years ago?

[The information follows:]

Yes. It is accurate to state that design and construction specifications under predecessor organizations to the Metropolitan Transportation Authority were not always followed.

Mr. CARR. Do you think grantee and contractor oversight of the Los Angeles subway system was adequate during the time of construction of the segments in question?

[The information follows:]

Yes. In general we believe that the oversight by the grantee and contractors was adequate. However, based on the results of the panel's review and evaluation and a recent study commissioned by the Metropolitan Transportation Authority of the contractor's and construction manager's performance, there were apparent lapses in the oversight effort.

Mr. CARR. Have changes been made in the design and construction operations and oversight to preclude any similar occurrences?

[The information follows:]

Yes. Significant changes have occurred in the management of the Los Angeles Metro project since construction of the segment in question. The management changes, including a more aggressive quality assurance program, have had a positive impact on the Metro project, by advancing the project's management style from a reactive posture to a proactive one.

Mr. CARR. The U.S. Attorney's office also conducted an investigation of potential construction deficiencies in the Los Angeles system; is that correct? What were the results of that investigation?

[The information follows:]

It is our general understanding that the U.S. Attorney's office was conducting an investigation on the Metro project. However, we have no specific knowledge of the focus or status of the investigation.

Mr. CARR. Have any charges of fraud or negligence ever been brought against individuals working for the grantee, design firm or the contractor?

[The information follows:]

To our knowledge no charges of fraud or negligence have been brought against individuals on the project.

Mr. CARR. Ridership for the part of the Los Angeles subway that opened last year was very low before the Northridge earthquake occurred in January. What were the early ridership figures and how much did they increase immediately after the earthquake? Have the ridership figures fallen again recently?

[The information follows:]

The week after the Northridge earthquake, ridership on segment 1 of the Metro Red Line peaked at 20,100 passengers. Prior to the earthquake, ridership had averaged approximately 15,100 passengers a day, and currently ridership has stabilized at approximately 17,100 passengers a day. This first segment of the Red Line, opened in January, 1993, is 4.4 miles long, and runs through downtown Los Angeles between Union Station and Westlake/MacArthur Park, with three stations between these points. The rise in Red Line ridership after the quake has been attributed mainly to the rise in ridership on Metrolink, the commuter rail system. All of Metrolink's routes converge at Union Station, including the Santa Clarita line and Ventura County line, both of which have been extended since the quake to carry commuters from and through quake-affected areas.

It is anticipated that the increase in Metrolink ridership as service expands and due to the earthquake, if sustained, will continue to have a positive impact on Metro Red Line ridership. FTA will soon have ridership surveys underway in L.A. to determine the effects the earthquake has had on travel behavior and to develop a strategy for sustaining transit ridership increases.

Mr. CARR. Press reports from last November allege that the Los Angeles red line is more than $200 million over budget. Metro rail's head of rail construction reportedly said last May that the project had experienced a high number of costly change orders. These change orders helped drive construction contracts 35 percent over budget.

Do you agree with the gist of these reports?

[The information follows:]

No. We believe the numbers reported in the press were not properly put in perspective. The press reported that segment one of the Red Line project was 35 percent over budget. The fact is that the overall segment one project was projected to be less than 18 percent over budget (final close-out figures are not available at this time). The 35 percent figure comes from a comparison of the value of the construction contracts at the time of award to the projected final cost of the construction contracts. Even though the construction contracts may have grown 35 percent from award to projected close-out, they in fact are only 10 percent above the original budget estimates.

Mr. CARR. Do you think the grantee's and the Federal Transit Administration's oversight of the project's construction has been adequate?

[The information follows:]

Yes. In general we believe that the overall oversight has been adequate.

Mr. CARR. What are the reasons for the large number of change orders? What are the grantee and the FTA doing to rein in the number and cost of the change orders?

[The information follows:]

Change orders are due to a number of reasons, such as differing site conditions. The Metropolitan Transportation Authority has established a Disputes Resolution Board and developed a pro-active claims management program that has substantially reduced the quantity and values of claims.

Mr. CARR. Has the project been managed too much to an artificial schedule? In other words, have some of the cost increases been incurred due to allegiance to an unrealistic schedule?

[The information follows:]

We do not believe that the project has been driven by unrealistic schedules.

Mr. CARR. How much will the cost overruns will be borne by the federal government?

[The information follows:]

The Metropolitan Transportation Authority is responsible for project cost overruns. FTA, under the FFGA, may assist in payment of extraordinary costs specifically defined in the agreement. At this time the FTA has not been requested to participate in any extraordinary cost.

Mr. CARR. Other press reports indicate the Los Angeles Red Line's cars are experiencing excessive wheel wear. The wheels, designed to last for 250,000 miles, apparently are failing after 18,000 miles. Are the reports accurate?

[The information follows:]

There was no mileage requirement for the wheels specified in the contract. A major cause of wheel wear is curved track and approximately 50 percent of the 2.9 mile Red Line operational segment is curved track. Initially wheel life was running approximately 18,000 miles. Changes were implemented to improve wheel life which is now approximately 70,000 miles.

Mr. CARR. Has the transit authority lowered the speed limit on any sections of the track in response to the excessive wheel wear?

[The information follows:]

Changes were implemented to improve wheel wear such as slowing on the curved sections, lubricating track, and making adjustments to the steering system. These changes improved wheel life to 70000 miles and it is expected that as other recommendations made by a railcar wheel wear expert are implemented that life will be increased to over 100,000 miles. The next segment of track to open is primarily straight track which will significantly increase the wheel mileage life.

Mr. CARR. What has been the financial impact of the excessive wheel wear? Who has to bear the costs? Are there any warranty provisions in the contract that require the manufacturer to solve the problem at his expense?

[The information follows:]

There was no wheel wear mileage requirement specified in the contract. A major cause of wheel wear is curved track which the railcar manufacturer has no control. Approximately 50 percent of the 2.9 mile Red Line operational segment is curved track. The replacement of the wheels is not a high cost item and the transit agency has been bearing the costs. There are no warranty provisions on wheel life because the railcar manufacturer does not have any control on track geometry and speed policies. At its own expense, the railcar manufacturer has provided engineering personnel to work with the transit agency and wheel wear experts in resolving the problem. The manufacturer implemented changes to his steering system to reduce wheel wear.

BUS MANUFACTURING INDUSTRY CAPACITY

Mr. CARR. What is the health of the domestic bus manufacturing industry today? How does it compare with one year ago?

[The information follows:]

The industry is improved over last year with more buses being purchased. Bus manufacturers' backlogs are increasing, and delivery times are now running over a year. Although the industry health is not considered strong, market conditions are improving and this trend is expected to continue.

Mr. CARR. How much excess capacity is there in the bus industry today? How many buses are being built annually and how many could be built at peak capacity?

[The information follows:]

The industry has excess capacity of approximately 3,000 buses. Approximately 3,000 buses are being manufactured annually, and the industry has a peak capacity of 6,000 buses per year on a one-shift per day basis.

Mr. CARR. Last November Motor Coach Industries International, Inc. announced its intention to quit the bus making business, citing continuing losses in operations. Do you think there may be additional consolidation of the industry in the future?

[The information follows:]

Although the industry is improving, some manufacturers are having difficulty and there may be further consolidation in the industry.

FAREBOX RECOVERY RATES

Mr. CARR. By category, provide the farebox recovery rates, on a national basis, for bus, light rail, heavy rail, and commuter rail.

[The information follows:]

Because transit operators are not required to report fare revenue by mode in the section 15 system, it is not possible to report on fare recovery ratios by mode.

Mr. CARR. How many rail systems built in this country have farebox recovery rates of 50 percent or higher?

[The information follows:]

Of the 34 operators with rail systems, 9 have fare recovery rates over 50 percent. These include the Burlington Northern Railroad (Chicago), San Diego Trolley, Northwestern Indiana Commuter Transportation District, Port Authority Transit Corporation (Philadelphia), the Chicago and Northwestern Railroad, Metro-North Commuter Railroad, New York City Transit Authority (NYCTA), Chicago Metra, and the Washington Metropolitan Area Transit Authority (WMATA). For the multimodal operators (NYCTA and WMATA), the farebox recovery ratio is for the operator as a whole.

Mr. CARR. What are the farebox recovery rates for the section 3 new star projects for which the administration is seeking funding in the 1995 budget request?

[The information follows:]

The following table displays the farebox recovery ratio for the operators of the transit systems included in the Section 3(j) Report for fiscal year 1995 new starts funding:

Operator	*Farebox recovery ratio/percentage*
Dallas	18
Los Angeles	36
New York	54
Portland	27
St. Louis	25

Mr. CARR. What are the rates for the section 3 projects not addressed above currently in construction or final design phases?

[The information follows:]

Additional transit agencies whose section 3 new start projects are currently in the construction of final design phases have the following farebox recovery rates, according to the latest available (1992) section 15 data:

Operator	*Farebox recovery ratio/percentage*
Atlanta (MARTA)	35
Baltimore (MTA)	39
Denver (RTD)	20
Houston (Metro)	28
Jacksonville (JTA)	22
Miami (MDTA)	31
New Jersey (NJ Transit)	48
San Francisco (Muni/BART)	37
San Jose (SCCTD)	11

UNOBLIGATED BUS FUNDS

Mr. CARR. Testimony last year revealed that at the same time that there existed more than $300 million in unobligated bus funding, the FTA had requests in the pipeline of more than $800 million, including more than $200 million ready to go and approvable in every respect, including section 13 (c) certificates from the Department of Labor. The only problem was lack of money. The Congress was sensitive to this situation last year and did not earmark all of the section 3 bus money.

What is the situation this year? What is the current amount of unobligated bus money?

[The information follows:]

The current amount of unobligated bus money as of March 31, 1994 is $370 million. This consists of $230 million in fiscal year 1994 earmarked funds, $117 million in fiscal year 1993 earmarked funds, $24 million in fiscal year 1992, and $2.4 million in fiscal year 1990 funds. Following is a table showing availability and obligations of fiscal year 1994 and fiscal year 1993 bus funds by area thru March 31, 1994. Also following is a list of projects with fiscal year 1992 and prior year unobligated funds.

FEDERAL TRANSIT ADMINISTRATION
SECTION 3 BUS
OBLIGATION STATUS FY 1994 EARMARKS/ALLOCATIONS
AS OF MARCH 31, 1994

AREA	FY 1994 EARMARKS/ COMMMITMENTS	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
MI State	$10,000,000	$0	$10,000,000
PA Altoona(Bus Testing)	2,000,000	0	2,000,000
AR Little Rock	2,100,000	0	2,100,000
AZ Tucson	1,500,000	0	1,500,000
CA Lake Tahoe Regional Transit	2,100,000	0	2,100,000
CA Los Angeles	8,000,000	0	8,000,000
CA Sacramento	4,000,000	0	4,000,000
CA Santa Barbara	3,000,000	0	3,000,000
CA San Francisco Bay Area	3,000,000	0	3,000,000
FL Miami	3,000,000	3,000,000	0
Fl Orlando	2,500,000	2,500,000	0
GA Atlanta	4,000,000	4,000,000	0
HI Kauai	1,750,000	0	1,750,000
IL State	17,000,000	0	17,000,000
IN South Bend	3,100,000	0	3,100,000
IA State	8,000,000	0	8,000,000
IA Cedar Rapids	3,000,000	0	3,000,000
IA Des Moines	2,000,000	0	2,000,000
KS Louisville	2,000,000	0	2,000,000
KS Topeka	8,000,000	0	8,000,000
LA New Orleans	5,000,000	5,000,000	0
Maine State	2,000,000	0	2,000,000
MD Silver Spring	1,500,000	0	1,500,000
MA Pioneer Valley Transit Authority	1,000,000	0	1,000,000
MI Southeast	5,000,000	0	5,000,000
MN MTC	7,000,000	0	7,000,000
MO State	8,000,000	0	8,000,000
MO St. Louis	4,000,000	0	4,000,000
NJ Camden	800,000	0	800,000
NJ South Amboy	500,000	0	500,000
NM Albuquerque	1,750,000	0	1,750,000
NV Las Vegas	4,500,000	0	4,500,000
NY Nassau County	12,000,000	0	12,000,000
NY NYDOT	9,491,364	9,491,364	0
NC State	12,000,000	0	12,000,000
OH State	14,000,000	0	14,000,000
OH Cleveland	3,500,000	3,500,000	0
OH Lake County	2,000,000	0	2,000,000
OK State	5,000,000	0	5,000,000
OK Oklahoma City	1,000,000	0	1,000,000
OK Tulsa	1,000,000	0	1,000,000
OR Eugene	2,000,000	0	2,000,000
OR Salem	3,800,000	0	3,800,000
PA BARTA	2,580,000	2,580,000	0
PA Philadelphia	10,000,000	9,000,000	1,000,000
PA Williamsport	2,500,000	0	2,500,000

FEDERAL TRANSIT ADMINISTRATION
SECTION 3 BUS
OBLIGATION STATUS FY 1994 EARMARKS/ALLOCATIONS
AS OF MARCH 31, 1994
(CONTINUED)

AREA	FY 1994 EARMARKS/ COMMMITMENTS	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
PR San Juan........................	$2,500,000	$0	$2,500,000
SC Charleston......................	4,000,000	4,000,000	0
SD Sioux Falls.....................	2,400,000	0	2,400,000
TN State...........................	8,000,000	0	8,000,000
TX Corpus Christi..................	1,500,000	0	1,500,000
TX Dallas..........................	4,000,000	0	4,000,000
TX El Paso.........................	5,000,000	0	5,000,000
TX Laredo..........................	4,500,000	4,500,000	0
UT Salt Lake City..................	3,000,000	0	3,000,000
VT Rutland.........................	1,500,000	0	1,500,000
VA Fairfax	6,000,000	0	6,000,000
WA Seattle.........................	4,700,000	0	4,700,000
WV Wheeling........................	8,500,000	501,236	7,998,764
WI State...........................	5,000,000	0	5,000,000
WI Milwaukee.......................	3,000,000	0	3,000,000
Fuel cell buses....................	3,000,000	0	3,000,000
TOTAL..............................	$278,571,364	$48,072,600	$230,498,764

AREA	FY 94 ADMINISTRATIVE ALLOCATION	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
AL Birmingham......................	$3,393,600	$3,393,600	$0
CA Stockton........................	5,000,000	5,000,000	0
CO Pitkin County...................	3,060,800	3,060,800	0
FL Orlando.........................	5,000,000	5,000,000	0
FL Sarasota........................	3,688,480	3,688,480	0
GA Atlanta.........................	6,000,000	6,000,000	0
KY Ft. Wright......................	2,310,000	2,310,000	0
LA New Orleans.....................	5,000,000	5,000,000	0
MA Lowell..........................	2,340,000	2,340,000	0
MA New Bedford.....................	5,000,000	5,000,000	0
MI Flint...........................	4,500,000	4,500,000	0
MN Duluth..........................	2,000,000	2,000,000	0
NE Omaha...........................	2,364,800	2,364,800	0
NH Concord.........................	980,340	980,340	0
NY Albany..........................	1,024,000	1,024,000	0
NY Buffalo.........................	2,080,496	2,080,496	0
NY Elmira..........................	108,368	108,368	0

FEDERAL TRANSIT ADMINISTRATION
SECTION 3 BUS
OBLIGATION STATUS FY 1994 EARMARKS/ALLOCATIONS
AS OF MARCH 31, 1994
(CONTINUED)

AREA	FY 94 ADMINISTRATIVE ALLOCATION	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
NY Hauppauge	$804,685	$804,684	$1
NY Ithaca	492,000	492,000	0
NY Rome	99,200	99,200	0
OH Youngstown	3,500,000	3,500,000	0
OR Portland	500,000	500,000	0
PA Chambersburg	240,000	240,000	0
PA Reading	5,000,000	5,000,000	0
SC Charleston	2,871,400	2,871,400	0
TX Laredo	2,500,000	2,500,000	0
WA Richland	880,000	880,000	0
WV Charleston	3,200,000	3,200,000	0
WY Rock Spring	564,257	564,256	1
TOTAL	$74,502,426	$74,502,424	$2

FEDERAL TRANSIT ADMINISTRATION
SECTION 3 BUS
OBLIGATION STATUS FY 1993 EARMARKS/ALLOCATIONS
AS OF MARCH 31, 1994

AREA	FY 1993 EARMRKS/ COMMITMENTS	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
AZ Tucson	$3,254,318	$3,254,316 FY 93 Ob	$2
CA Los Angeles	12,203,694	0	12,203,694
CA Sacramento	6,700,067	1,120,000 FY 93 Ob	5,580,067
CA San Francisco (MUNI)	14,357,287	14,357,287 FY 93 Ob	0
CO Denver	11,284,827	11,284,824 FY 93 Ob	3
CO Eagle County	1,148,583	1,070,976 FY 93 Ob	77,607
FL Key West	1,856,876	1,856,876 FY 94 Ob	0
FL Miami	14,644,433	11,724,433 FY 93 Ob	2,920,000
GA Atlanta	3,828,609	2,526,880 FY 93 Ob	1,301,729
IN Lafayette/State	8,858,446	6,448,663 93/94 Ob	2,409,783
IA Des Moines	12,203,694	80,000 FY 93 Ob	12,123,694
KS Wichita	3,254,318	3,254,318 FY 93 Ob	0
MD State	21,057,354	20,317,356 FY 93 Ob	739,998
MI State	9,925,000	9,458,264 FY 94 Ob	466,736
MO Kansas City	12,538,697	0	12,538,697
MO St. Louis	813,580	0	813,580
NJ State(security)	3,254,318	3,254,318 FY 93 Ob	0
NJ Atlantic City	17,085,172	17,085,172 FY 94 Ob	0
NM Rio Rancho	325,432	0	325,432

FEDERAL TRANSIT ADMINISTRATION
SECTION 3 BUS
OBLIGATION STATUS FY 1993 EARMARKS/ALLOCATIONS
AS OF MARCH 31, 1994
(CONTINUED)

AREA	FY 1993 EARMRKS/ COMMITMENTS	AMOUNT OBLIGATED	UNOBLIGATED BALANCE
NM Santa Fe........................	$325,432	$325,432 FY 93 Ob	$0
NY College Point/Queens............	6,508,636	6,508,636 FY 93 Ob	0
NY Nassau County...................	7,729,006	7,729,004 FY 93 Ob	2
NY Niagara Frontier Transp. Auth...	6,125,776	0	6,125,776
NC State...........................	13,017,274	7,417,274 FY 93 Ob	5,600,000
OH Columbus........................	4,067,898	4,067,898 FY 93 Ob	0
OH Miami Valley....................	12,203,694	12,203,694 FY 93 Ob	0
OR Eugene..........................	3,350,034	0	3,350,034
OR Lane County.....................	4,517,760	4,517,760 FY 93 Ob	0
OR Medford.........................	2,033,949	2,033,949 FY 93 Ob	0
PA Altoona(Bus Testing)............	1,985,000	1,985,000 93/94 Ob	0
PA Erie............................	4,067,898	0	4,067,898
PA Pittsburgh......................	8,135,795	0	8,135,795
PR San Juan........................	5,742,915	5,742,912 FY 94 Ob	3
TN Chattanooga.....................	13,400,135	13,400,135 FY 93 Ob	0
TN Memphis.........................	6,834,068	0	6,834,068
TX Brazos Valley...................	10,026,172	8,890,132 FY 93 Ob	1,136,040
TX Corpus Christi..................	4,690,047	1,532,000 FY 93 Ob	3,158,047
TX Dallas..........................	21,153,069	0	21,153,069
TX El Paso.........................	5,647,201	5,647,200 FY 93 Ob	1
UT Salt Lake City..................	5,168,623	5,168,620 FY 93 Ob	3
VA Fairfax County..................	7,647,648	7,647,648 FY 93 Ob	0
WA Chelan-Douglas..................	1,914,305	0	1,914,305
WI State...........................	14,644,433	14,644,433 FY 93 Ob	0
Fuel cell bus......................	4,881,477	0	4,881,477
TOTAL..............................	$334,412,950	$216,555,410	$117,857,540

SUMMARY

	TOTAL SECTION 3 AVAILABLE	TOTAL OBLIGATIONS	UNOBLIGATED BALANCE	PERCENT OBLIGATED
FY 94 EARMARKS/COMMITMENTS	$278,571,364	$48,072,600	$230,498,764	17
FY 94 ALLOCATIONS	74,502,426	74,502,424 1/	2	100
SUBTOTAL FY 94 AVAILABLE	$353,073,790	$122,575,024	$230,498,766	35
FY 93 EARMARKS/COMMITMENTS	334,412,950	216,555,410 2/	117,857,540	65
TOTAL AVAILABLE EARMARKS/COMMITMENTS	$687,486,740	$339,130,434	$348,356,306	49

1/ Includes $1,251,290 for FY 94 allocations of prior year funds
2/ Includes $178,743,210 obligated in Fiscal Year 1993

FEDERAL TRANSIT ADMINISTRTION

UNOBLIGATED BALANCE FY 1992 & PRIOR YEARS

SECTION 3 BUS

AREA	YEAR OF ALLOCATION	UNOBLIGATED BALANCE
AR, Eureka Springs	FY 1992	63,600
CA, San Francisco	FY 1992	2,500,000
OR, Eugene	FY 1992	3,500,000
PA, Philadelphia	FY 1992	4,000,000
TN, Chattanooga	FY 1992	1,000,000
TN, Memphis	FY 1992	1,900,000
TN, Nashville	FY 1992	3,456,800
TX, Dallas	FY 1992	7,500,000
WI, Madison	FY 1990	2,493,000
		$26,413,400

Mr. Carr. How much of the unobligated bus money is more than two years old?

[The information follows:]

Of the $370 million unobligated, a $26.4 million is more than two years old.

Fiscal Year:	Million
1992	$24.0
1990	2.4

Mr. Carr. What is the amount of the pipeline of valid bus requests that could be funded if additional resources were available or if less bus funding had been earmarked?

[The information follows:]

After fiscal year 1994 bus earmarks, ISTEA earmarks, and FTA administrative commitments were recognized, $73 million remained available for discretionary allocation by the Federal Transit Administrator. At the time that the Administrator made decisions on allocating the remaining $73 million, the bus pipeline requests consisted of 138 projects totalling $933 million. Of these, 58 projects totalling $337 million were approvable in every respect. Twenty-nine of these projects were selected for funding.

As of April 19, 1994, the remaining section 3 bus pipeline of requests totals $730 million. Of this amount, $287 million is currently approvable in every respect.

DISCRETIONARY BUS GRANTS

Mr. Carr. The Federal Transit Administration recently awarded $112 million in discretionary bus grants to 32 mass transit systems. Recent trade press reports indicate that the largest single award of $10 million was to New Bedford, Massachusetts, a community with a population of a little more than 100,000. Why did New Bedford receive such a large grant? Exactly how will New Bedford use the funding?

[The information follows:]

Press information to the contrary, the Southeastern Regional Transit Authority (SRTA), which is located in New Bedford, Massachusetts received $5 million to assist in financing the purchase of up to twenty-eight 35-foot fixed route buses, seven paratransit vehicles and related equipment to comply with the Clean Air Act of 1991 and the Americans with Disabilities Act of 1990. The SRTA services the Fall River and the New Bedford areas. The SRTA bus fleet is in dire need of replacement as the average age of the fixed route fleet is currently 18 years.

The distribution of the $112 million in discretionary bus grants follows:

CITIES RECEIVING GRANTS

Albany, NY	$1,024,000
Birmingham, AL	$3,393,600
Buffalo, NY	$2,080,496
Chambersburg, PA	$240,000
Charleston, SC	$6,871,400
Charleston, WV	$3,200,000
Cleveland, OH	$3,500,000
Concord, NH	$980,340
Duluth, MN	$2,000,000
Elmira, NY	$108,368
Flint, MI	$4,500,000
Fort Wright, KY	$2,310,000
Ithaca, NY	$492,000
Memphis, TN	$1,350,000
Miami, FL	$3,000,000
New Bedford, MA	$5,000,000 ←
New Orleans, LA	$10,000,000
Omaha, NE	$2,364,800
Orlando, FL	$7,500,000
Reading, PA	$7,580,000
Philadelphia, PA	$9,000,000
Pitkin County, CO	$3,060,800
Portland, OR	$2,500,000
Richland, WA	$880,000
Rock Springs, WY	$564,256
Rome, NY	$99,200
San Juan, PR	$5,742,912
Sarasota, FL	$3,688,480
Stockton, CA	$5,000,000
Suffolk County, NY	$804,684
Youngstown, OH	$3,500,000

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VEHICLE SPARE RATIOS

Mr. CARR. Information prepared by the FTA indicates that more than 50 percent of the bus operations nationwide have spare vehicle ratios that exceed the FTA guideline of 20 percent. Did any grants awarded this year go to properties that exceed the guideline?

[The information follows:]

The 20 percent is a goal and not a requirement. Transit agencies are obtaining new buses that have new technology equipment such as cleaner alternative fueled buses, new ADA equipment such as lifts, and buses with different operating and maintenance requirements. The introduction of new and/or different technology equipped buses has resulted in higher than normal maintenance problems and failures caused by equipment design bugs or lack of familiarity of equipment by transit personnel. Rather than immediately retiring older buses transit agencies are keeping these buses as backup until problems with the new buses are resolved. Grants have been awarded to agencies that have exceeded the 20 percent with the understanding that as problems associated with the new buses are resolved that the spare ratios will be reduced.

Mr. CARR. During the past three years, how many grants and how much funding was awarded to bus operations that at the time of award had spare vehicles in excess of the FTA guideline?

[The information follows:]

[CLERK'S NOTE.—The requested information was not provided in time to be printed in the record.]

FEDERAL SHARE OF SECTION 3 GRANTS

Mr. CARR. Last month the Congressional Budget Office released its annual report Reducing the Deficit: Spending and Revenue Options. One option relating to transportation was to reduce the federal share of investment costs for mass transit systems. The report includes the following comment: "Reducing the federal share of capital costs for mass transit might improve local investment choices, as a similar reduction seems to have done in the case of federal subsidies for construction of local wastewater treatment plants."

Do you agree with the premise of the CBO's recommendation, that better decisions might be made if the federal share of mass transit systems were reduced?

[The information follows:]

Local municipalities and transit systems often arrive at their infrastructure investment decisions through a competitive process between transit projects and highway projects. To the extent that both have an equal local match requirement, the competition takes place on the merits of the project. Once one project has a lower required local match than another, it immediately has a perceived financial advantage in the local cost/benefit equation. Therefore, it is important that transit and highway grant programs have the same federal/local matching requirements.

Mr. CARR. Both the Federal Transit Administration and the Congress appear to favor those transit systems with the greatest nonfederal overmatch. Why shouldn't such an approach be institutionalized or legislated?

[The information follows:]

There are two basic reasons for the overmatch initiative not to be institutionalized. The first is that all transit grantees do not have equal local funding availability for overmatch purposes. Some transit grantees have no local funding beyond specific annual appropriations by their county or city councils. Such grantees would, of necessity, be disadvantaged by formalizing the overmatch initiative further. The second reason for not institutionalizing the overmatch condition is that it might skew the investment decisionmaking process. It would be unfortunate if high benefit/cost projects were foregone in favor of lower benefit/cost projects solely on the basis of overmatch.

Mr. CARR. What would be the impact on the 1995 budget if the Congress were to require a 25 percent or 30 percent non-federal contribution for section 3 projects, instead of the current 20 percent requirement?

[The information follows:]

There are presently greater needs for transit capital investment than will be met by the 1995 section 3 budget. Increasing the required local share will therefore have little impact on the budget itself. Federal funds may contribute to a greater number of transit projects in the near term but in marginally smaller proportion. However, whenever local funds become constrained, there will be a strong incentive to use local matching funds as efficiently as possible. In the local context, this will mean providing funds for 20 percent local match before providing funds for 25 percent or 30 percent local match. In the long term, this could result in inadequate investment in necessary transit projects. In addition, ISTEA made the matching ratios for highway and transit projects the same. This has the effect of making the local choice on a highway or transit project evenhanded, eliminating any bias towards one kind of an investment versus another. Maintaining equality between highway and transit projects in this way is important to assure that local decisions are not biased by federal program requirements.

Mr. CARR. In the case of wastewater treatment construction in the Environmental Protection Agency, the federal contribution declined from 75 percent to 55 percent. Several years ago, the entire structure of the program was changed from grants to loans. What arguments do you see for and against using a similar approach for the section 3 program?

[The information follows:]

The greatest argument in favor of such an approach for the section 3 program is that it could multiply the aggregate level of transit investment in a very short time. Reducing the federal share in transit projects would result in a greater number of projects being supported, albeit at a lower contribution level. However, converting the structure to a loan program might facilitate a one-time quadrupling of investment in transit infrastructure through grant-backed loans.

The single argument against increasing the local match and making the section 3 program a loan facility is funding. While wastewater treatment facilities have the ability, through their local public utility commissions, to set rates and prices at compensatory levels (meaning that they can eventually repay the cost of their construction loans from their own local revenues) transit grantees rarely have that ability. Transit fares are often set through public hearings and the local political process. As a result, the national average farebox recovery rate is around 40 percent. State and local support makes up most of the remainder. For transit investment to be increased by borrowing, as in the case of wastewater treatment facilities, would require that transit authorities have dedicated, long-term revenue sources in excess of their operating costs.

ALTERNATIVE FUELS

Mr. CARR. What percentage of existing buses uses alternative fuels?

[The information follows:]

Approximately 1,200 of the 55,000 transit buses now in service use alternative fuels, or slightly more than two percent.

Mr. CARR. What percentage of new bus production is designed for alternative fuel use?

[The information follows:]

Approximately 25–30 percent of the buses now on order will be powered by alternative fuels.

Mr. CARR. What action is the FTA taking regarding the use or promotion of alternative fuels?

[The information follows:]

The incremental cost of alternative fuel vehicles can be funded with a 90 percent federal share rather than the 80 percent maximum share for diesel buses. The 90 percent funding only applies to the additional cost of the alternative fuel bus over and above the cost of a diesel bus.

Additionally, FTA is developing and providing the necessary technical assistance and support to the transit industry in making a successful transition to alternative fuels. Training manuals/programs for the safe handling and use of alternative fuels in a transit environment have and are being developed to assist transit agencies in converting their operations to alternative fuels. Similar information concerning transit facilities concerns are also being developed.

FTA also produces and distributes a periodic Clean Air Program Brief to interested parties concerning developments in alternative fuels. These briefs include FTA funded activities as well as non-FTA funded programs. The briefs enhance the development of a network of interested peers and the exchange of information on alternative fuels.

Mr. CARR. What does the FTA view as the strengths and weaknesses of alternative fuels?

[The information follows:]

Alternative fuels offer significantly reduced exhaust emissions compared with diesel powered vehicles. Depending on the fuel and engine, many alternative fuel buses produce significantly less noise than their diesel counterparts. Depending on the fuel, the cost of fuel can be slightly lower than the cost of diesel. Alternative fuels are more likely to be renewable or domestically produced, reducing reliance on foreign energy sources.

The capital costs of the vehicles are higher than for diesel-powered buses. In addition, the capital costs associated with fueling stations and modifications to existing maintenance and storage facilities can also be significant. As alternative fuels become more common, the incremental costs associated with their use are likely to decrease.

Mr. CARR. How do the costs of alternative fuels compare with regular diesel?

[The information follows:]

Currently, natural gas fuels both in compressed (CNG) and liquefied (LNG) form are similar in cost to diesel. Costs can be slightly higher or lower depending on the region, local utility rate regulation, and the type of fueling facilities used. Alcohol fuels (methanol and ethanol) are currently significantly more expensive than diesel fuel, averaging between 1.7 and 2.5 times as much, depending on the fuel type and source.

Mr. CARR. Under similar conditions, how do life cycle costs compare for diesel buses, electric buses, compressed natural gas buses, liquefied natural gas buses, and buses using a mixture of regular diesel and alternative fuels such as "soy diesel" or other additives?

[The information follows:]

The normal life cycle for heavy duty transit buses is 12–15 years, and the oldest alternative fuel buses in service are less than three years old. Additionally, the technology for the different fuels is continually improving, while diesel engine technology is relatively mature. Thus, it is difficult to predict the life-cycle costs with any degree of accuracy at this time. However, due to their increased weight and complexity, alternative fuel buses would be expected to have somewhat higher life-cycle costs. It is not known whether the additional costs will be significant.

Mr. CARR. What research is the FTA supporting dealing with alternative fuels?

[The information follows:]

The FTA is supporting programs to develop electric and fuel-cell powered vehicles. FTA is also funding the development of an advanced technology transit bus which will combine light weight, accessibility, and low emissions with reduced life-cycle costs. This bus will be powered by alternative fuels. In addition, the FTA has numerous smaller programs underway to address issues related to alternative fuel facilities and safe operating procedures for alternative fuel vehicles.

Mr. CARR. Does the Federal Transit Administration have any financial involvement in the soy diesel project being conducted by the Southwest Ohio Regional Transit Authority? Are you aware of any preliminary test results from the test?

[The information follows:]

FTA is not specifically funding this program, although the transit authority may be using their section 9 formula funding for part of the program. FTA is not aware of any results from this project at this time.

Mr. CARR. Certain communities prefer electric trolleys, claiming that diesel is not usable due to non-attainment status and that alternatively fueled vehicles will not work due to low horsepower and poor acceleration. However, other communities have made adjustments to CNG buses so that performance is adequate. What is the FTA's opinion on the capability of CNG buses, especially regarding their ability to handle hills with adequate speed and acceleration?

[The information follows:]

Some early CNG-powered buses suffered from poor acceleration. Current buses, although slightly less powerful than their diesel counterparts, offer comparable performance due to axle-ratio selection and transmission programming. CNG engines now under development are expected to offer performance and horsepower equal to or better than current diesel buses.

REGIONAL COMMUTER RAIL ISSUES

Mr. CARR. Press reports indicate charges established by the railroads that own the tracks used by commuter rail systems in both Maryland and Virginia are increasing significantly. In the case of the Maryland Regional Commuter line [MARC), the charges have increased from $7 million three years ago to $15 million now. In Virginia, the track owner hopes to increase the charge to the Virginia Railway Express from $600,000 to $5 million, an increase of more than 500 percent.

Does the Federal Transit Administration play any role in establishing the fee structure charged by railroads for commuter lines using the tracks?

[The information follows:]

No. Section 12(d) of the Federal Transit Act specifically prohibits federal involment in the setting of transit rates, rentals, etc. The trackage charges of the host railroads are in fact a private contract between the owner and the commuter operator.

Mr. CARR. Do guidelines exist for determining reasonable charges for the use of a railroad's track and signal system?

[The information follows:]

The Federal Transit Administration, as stated previously, does not become involved in such issues of cost. However, the Interstate Commerce Commission, which was historically involved in such determinations, may still in certain circumstances have the authority to set such charges or provide guidelines for such.

Mr. CARR. What recourse do commuter lines have in the face of drastically increasing charges from the railroads?

[The information follows:]

Other than public and/or political pressure, the commuter operators are only able to either negotiate reasonable charges with the host railroads or withdraw from the service which, assumptively, would result in loss of revenue to the railroad company.

Mr. CARR. Is the issue of sharply increasing charges from the railroads a problem elsewhere across the country?

[The information follows:]

Generally, commuter rail operating costs in the Chicago metropolitan area, which in certain instances operate over private railroad lines, have been stable relative with reasonably justified cost increases. In California, new commuter services are operated on publicly owned rail lines as is the case in New York/New Jersey. However, the commuter operations over CSX Transportation lines by Maryland Commuter Rail and Virginia Railway Express are being significantly or potentially impacted by increased usage charges.

Mr. CARR. MARC's operating expenses have increased from $12 million in 1988 to more than $32 million in 1993, largely due to increased charges placed by CSX railroad and by Amtrak for the use of the trackage. In spite of a 19 percent increase in fares beginning last October, MARC's operating deficit continues to grow, and fares this year will not cover half of operating costs, in violation of State law.

In your opinion, do the actions of the railroads threaten the existence of any commuter railroads?

[The information follows:]

Certain of the MARC cost increases are attributable to the increase of train service in recent years on their three existing lines. Also, a 50 percent fare recovery rate is high in comparison to the Chicago commuter lines which average in the high 20 percent range of recovery or the New York lines, Long Island Railroad and Metro North, for example, which range in the mid-40's percentile of fare box recovery.

However, the increases proposed by CSX are dramatic and, if sustained, could certainly price these commuter services out of the range of both fare box and public subsidy resources.

Mr. CARR. Commuter railroads represent one of the few areas of mass transit to experience growth during the past decade. Do the actions of the railroads, which could lead to significant fare increases, threaten this growth?

[The information follows:]

If, as previously stated, the owner railroad is able to extract an increase in trackage and other facility charges of up to 500 percent, as is proposed in the case of the Virginia Railway Express operation, such would threaten the growth of commuter rail operations at least in the instance of MARC and VRE. Transit and commuter rail fares are relatively inelastic which often results in ridership loss when fares are substantially increased and public subsidy resources necessary to make up the difference between fare box revenues and operating costs are already strained in many urban areas.

Mr. CARR. Are the railroads merely trying to cash in on the additional use of their tracks by the commuter railroads, or is there any operational impact of the greater commuter rail presence that justifies the higher charges?

[The information follows:]

We cannot address all railroads in the singular. A number of railroads currently providing trackage and facilities for public commuter operations regard such as an income source and a welcome contribution to the cost of maintaining expensive rights of way in urban areas. The Burlington Northern Railroad, for example, is actively seeking arrangements with potential public commuter operator in various cities served by their railroad lines.

Also, the general maintenance costs for passenger level services versus the requirements of freight only operations do result in increased costs to the owner railroad as well as the inflationary effects on such expenses.

This single most important potential expense which host railroads must consider in hosting commuter, and intercity, rail passenger operations is liability. These liability issues will be brought forth during future discussion of the reauthorizing legislation (HR 4111) for the National Railway Passenger Corporation (Amtrak) and will impact commuter rail operations throughout the United States.

Mr. CARR. Is it accurate to state that no federal funding from the Federal Transit Administration has been spent on a light rail system for Detroit during the past year?

[The information follows:]

Yes. That is true.

TRANSIT BENEFIT PROGRAM

Mr. CARR. Provide the Committee an update on the transit benefit program conducted by the federal government. Indicate how many employees are participating in the program, by department or agency, and the percentage of employees that represents.

[The information follows:]

Within the Department of Transportation, almost 4,900 headquarters employees (47 percent) are participating in the program compared to 34 percent just before the Department began offering up to the full $60 benefit in January 1993. According to the General Accounting Office in its report of September 1993, as of April 15, 1993, 75 executive, legislative, judicial, and independent federal agencies and organizations participated in transit benefit programs in 229 federal offices located in the nation's 25 largest metropolitan areas.

The recently enacted Federal Employees Clean Air Incentives Act requires the designation of a lead agency to collect and report that type of information. The General Services Administration is currently seeking that designation. The lead agency would be responsible for submitting to the President and the Congress, before January 1, 1995, and subsequently at least every 2 years, a written report on the number of agencies offering programs, a brief description of each of the various programs, the extent of employee participation and the cost of the program(s), assessment of any environmental or other benefits achieved as a result of the program(s), and any other appropriate matter.

Mr. CARR. Did the final report issued by the General Accounting Office last year reflect any significant changes in the percentages of federal employees participating in the transit benefit program from the data discussed during last year's hearing?

[The information follows:]

The final report issued by the GAO last year did not reflect any significant changes in the percentages of federal employees participating in the transit benefit program from the draft report discussed during last year's hearing. According to the final GAO report (GAO/RCED–93–163) published in September 1993, as of October 1992, there were approximately 14,000 federal employees and 53 federal agencies participating in the transit benefit programs in the Washington Metropolitan Area. According to the Washington Metropolitan Area Transit Authority, as of March 1994, approximately 22,000 federal employees and 89 federal agencies are participating in the program, which represents, respectively, a 57 percent and 68 percent increase over the GAO statistics. Participation has increased significantly where the benefit was increased to $60.

In the 25 largest U.S. metropolitan areas, according to GAO, approximately 19,000 employees participated in the program in October 1992. Total participation was 33 percent of eligible federal employees. This was projected to increase to 49 percent if the transit benefit amount was raised by all agencies to $60 per month. Participation includes all three branches of the federal government. Seven of the fourteen cabinet-level departments participated, with the Department of Transportation and the Department of the Treasury having the largest number of participating offices and employees.

The final GAO report indicates that 21 percent of federal transit benefit recipients (at least 3,500 employees) changed their commute mode because of the transit benefit program. At least 60 percent of those who changed their mode previously commuted by driving alone.

GEORGETOWN FUEL CELL BUS PROGRAM

Mr. CARR. The conference agreement on the 1994 Department of Transportation and Related Agencies Appropriations Act contained $2,250,000 for the Georgetown fuel cell bus program. What is the status of this effort? Is the Department requesting any additional federal funding for this program in 1995?

[The information follows:]

An approval package has been prepared to transfer $2,100,000 of the fiscal year 1994 earmark to the Department of Energy for the fuel cell/battery bus program. That approval package is currently under final review within FTA. Of the remaining 1994 earmarked funds, $100,000 will be used for continued technical support to FTA in monitoring the program and $50,000 is planned for a study to evaluate on-board-vehicle storage of hydrogen for fuel cell applications.

The Department has not requested any specific funding for the fuel cell/battery bus program in 1995.

Mr. CARR. Have any bus operations across the country expressed an interest in purchasing buses employing the fuel cell technology developed in the Georgetown project?

[The information follows:]

Because of the practically zero emissions from the fuel cell bus, a number of transit systems are interested in fuel cell buses. The ones that FTA is aware of include the Los Angeles County Metropolitan Transportation Authority, Orange County Transportation Authority, Phoenix Transit System, New Jersey Transit, New York Metropolitan Transportation Authority, Denver Regional Transportation District, Chicago Transit Authority, and Houston Metro.

Mr. CARR. For the record, submit a table that shows total federal funding, by department and fiscal year, provided for the Georgetown fuel cell bus program since its inception. Also indicate, by fiscal year, the amount of federal funding retained by Georgetown for its role as systems integrator of the project. Indicate what overhead rate has Georgetown charged for the project. Indicate the percentage of the actual work that has been performed on site at Georgetown and the percentage off site.

[The information follows:]

Fiscal year	FTA funds	DOE funds	SCAQMD funds[1]	Total funds
1987	$800,000	$1,000,000	$0	$1,800,000
1988	800,000	1,600,000	0	2,400,000
1989	900,000	2,000,000	300,000	3,200,000
1990	847,000	2,000,000	600,000	3,447,000
1991	1,000,000	2,000,000	0	3,000,000
1992	900,000	2,000,000	800,000	3,700,000
1993	1,800,000	2,000,000	370,000	4,170,000
1994	2,100,000	2,200,000	670,000	4,970,000
Totals	9,147,000	14,800,000	2,740,000	26,687,000

[1] South Coast Air Quality Management District.

Georgetown University was provided $980,000 between fiscal year 1987 and fiscal year 1990 for project management support under the phase I effort of the fuel cell/battery bus program. For the periods between fiscal year 1991 and fiscal year 1994, the amount was $2,571,000 for the phase II effort.

The average overhead rate that Georgetown University has charged was 40 percent.

Almost the entire project to date has been performed off-site of Georgetown University. The prototype buses have or are being fabricated in Santa Barbara. Work at Georgetown University has primarily involved the computer simulation of the performance of the fuel cell bus under various transit duty cycles and project management responsibilities.

NATIONAL TRANSIT INSTITUTE

Mr. CARR. ISTEA provides $3,000,000 annually for six years for the National Transit Institute. The Institute has been established at Rutgers University and received the first increment of ISTEA yearly funding in May 1992. According to information supplied by the FTA last year, Rutgers has negotiated an indirect cost rate of 62.5 percent, excluding equipment and consultant contracts, that applies to the grant for the Transit Institute.

What is the total amount, in dollars, that Rutgers has received to date in overhead charges associated with the Institute?

[The information follows:]

On March 8, 1994, Rutgers University notified the FTA that it had reduced the indirect cost rate for the National Transit Institute (NTI) from 62.5 percent to 14.75 percent retroactive to the start of the grant. This represents a dollar reduction from $1,364,781 to a current total of $352,502 of the total of $5,993,697 awarded to date. As of March 31, 1994 Rutgers University has billed the government $1,921,419 in total expenses, including $186,420 in indirect costs. The Institute carries another $1.6 million in projected obligations and commitments.

Mr. CARR. Does the 62.5 percent come off the top of the $3,000,000 made available annually by ISTEA? In other words, does the Federal Government wind up paying Rutgers University $1,875,000 for overhead costs, leaving $1,125,000 to conduct the business of the National Transit Institute?

[The information follows:]

No. The 62.5 percent indirect cost rate shown in last year's budget submission was negotiated down to 14.75 percent by the National Transit Institute, primarily because it is an off-campus activity and conducts training, not research. The 14.75 percent indirect cost rate applies only to modified total direct costs, which include: salaries, fringe benefits, materials and supplies, travel, the first $25,000 of subgrants and subcontracts, services, and other direct costs. This amounts to less than 10 percent of NTI's total costs paid to Rutgers University as overhead.

Mr. CARR. Are there additional costs for "equipment and consultant contracts" that further erode the direct work of the Institute?

[The information follows:]

The one-time costs for equipment and furniture for the National Transit Institute's personnel and facilities were funded by the grant and are not subject to indirect cost charges. Much of the work of the Institute is accomplished through contractors and consultants. Their efforts in curriculum design, development and presentation is essential to the success of the Institute and allows it to draw from a broad range of transportation expertise not readily available within the university or the Institute.

Mr. CARR. Do you think the government is getting its money's worth from the arrangement of the National Transit Institute at Rutgers?

[The information follows:]

Yes. The National Transit Institute has gotten off to an impressive start. It is delivering courses, seminars and workshops on a large number of subject areas of great benefit to the U.S. Department of Transportation, state departments of transportation, metropolitan planning organizations, transit agencies, large and small and others engaged in public transportation activities.

The courses, developed and presented at no cost to participants at the request of the FTA to help transit planners and providers comply with Federal program responsibilities, are valuable to FTA grantees, as proven by the full enrollments and excellent evaluations reported by participants, and valuable to FTA itself. The cooperative agreement with Rutgers has enabled FTA to provide more training to its constituents than ever before.

In addition to training relating to Federal programs, the Institute is providing training in subject areas which were recommended by an advisory board that is broadly representative of the transit industry. Courses cover a wide variety of subjects focusing on both new technology and transit management at all levels designed to increase the productivity and improve the performance of the transit industry.

The Institute's performance to date, FTA's expectations of continuous improvement, and administrative action to lower indirect cost rates charged by Rutgers, in summary, represent a cooperative agreement that works and should continue to produce cost-effective results in the future.

Mr. CARR. Last year, the FTA indicated that courses were under development at the Transit Institute in eight activity areas including ISTEA, ADA and the Clean Air Act Amendments. What is the status of this course?

[The information follows:]

The National Transit Institute (NTI) has completed development of the courses and to date has offered 25 training sessions on ISTEA, the Americans With Disabilities Act (ADA), and the Clean Air Act Amendments (CAAA) of 1990. In conjunction with the Department of Transportation, NTI offered eight outreach workshops on the new regulations on Clean Air Act conformity, management systems, and transportation planning. Six of these workshops were immediately followed by seminars on major investment analysis. Over 1,900 transportation planners, engineers, and others attended these 14 sessions in eight different locations. Attendees included representatives of transit authorities, metropolitan planning organizations, state and local departments of transportation and public works, the U.S. Department of Transportation and Environmental Protection Administration, regional planning agencies, environmental groups, consultants, contractors, air quality boards and others.

NTI offered a course on ADA Implemented and Eligibility at 11 locations. Over 350 attendees received instruction in meeting the Federal requirements for ADA transit eligibility.

In addition to ISTEA, ADA and CAAA, NTI has offered other courses in the eight activity areas of federal programs. In the area of procurement, NTI has offered courses in contract negotiation and cost price analysis, contract administration, and orientation to third party contracting. These three courses have each been presented twice to over 240 attendees representing transit authorities and other agencies.

Mr. CARR. How many courses has the Transit Institute offered to date? How many students and/or organizations have taken courses offered by the Institute?

[The information follows:]

In its first two years, NTI has offered over 50 courses in 13 different subject areas and one transit trainers' workshop, training more than 3,000 participants in all. Although NTI has not kept records by individual organizations, participants have been drawn from a wide range of transportation organizations at the federal, state and local level. The following table shows the courses of instruction offered by the National Transit Institute (NTI) since its inception less than two years ago.

NATIONAL TRANSIT INSTITUTE COURSES OF INSTRUCTION AND OTHER TRAINING ACTIVITIES

No. of times offered	No. of attendees	Course of instruction
11	350	Americans With Disabilities Act Implementation and Eligibility Workshop.
1	25	Advanced Vehicle Monitoring and Communications Systems.
1	25	Alternative Fuels for Small Vehicles & Vans.
2	80	Contract Negotiations & Cost/Price Analysis.
2	80	Contract Administration.
15	300	Effective Supervision.

NATIONAL TRANSIT INSTITUTE COURSES OF INSTRUCTION AND OTHER TRAINING ACTIVITIES—Continued

No. of times offered	No. of attendees	Course of instruction
1	25	Automatic Vehicle Location and Dynamic Scheduling for Rural and Paratransit Systems.
1	30	Geographic Information Systems in Transit.
2	50	Implementing Total Quality Management in Transit.
1	25	Introduction to Management Information Systems.
2	80	Orientation to Third Party Contracting.
8	1,900	USDOT Outreach Workshop on the New Clean Air Conformity, Management Systems, and Transportation Planning Regulations.
6	n/a [1]	USDOT Seminar on Major Transportation Investment Analysis.
1	120	Transit Trainers' Workshop.

[1] Attended by same participants as the USDOT Outreach Workshops which preceded the Seminars.

Mr. CARR. What types of training materials has the Institute distributed to date? Does the Institute charge recipients for the documents provided?

[The information follows:]

The National Transit Institute (NTI) has distributed a variety of materials to the industry. The primary means of distribution is through course participants. Materials include training manuals, regulations, suggested readings, and numerous other materials. These materials are provided at no cost for federal programs and as part of tuition charges for programs offered in response to industry-defined programs. NTI has assisted FTA in distributing training materials developed outside the Institute, such as the recently produced video and workbook *Destination Excellence,* a compendium of excellent practices in the transit industry. These materials were reproduced and distributed by the NTI at no cost to the industry.

Mr. CARR. How many employees does the Institute have? What is the salary structure for Institute employees?

[The information follows:]

The National Transit Institute has seven professional and four clerical staff. annualized salaries currently total $578,850, and adhere to Rutgers University personnel policies, practices, and salary structure. Approximately $500,000 is budgeted for professional salaries and the remainder for clerical support. The Institute also utilizes graduate students as part-time employees and uses available student employees, at no cost, through the University.

Mr. CARR. What services, if any, is Rutgers donating to the Transit Institute?

[The information follows:]

Although the Institute is located off campus, it benefits from additional free space on campus for seminars and meetings. It has access to other units of the university, such as the School of Policy and Planning, the Center for Alcohol Studies, the Center for Management Development, the Institute for Labor Studies, the Graduate School of Management and the School of Business. It also has access to a vast computer network linking it to other resources within the university community.

ADVANCED TECHNOLOGY TRANSIT BUS

Mr. CARR. In 1994, the Congress earmarked $6,250,000 for the advanced technology transit bus, sometimes referred to as the stealth bus.

What is the status of the program? On a percentage basis, how complete is the design? When will the prototype design be frozen?

[The information follows:]

The phase I, conceptual design, was successfully completed in November 1993. Federal assistance for this phase totaled nearly $4,000,000 in fiscal year 1993 Section 26(b) funds. The 12-month phase II, design validation is currently underway and is expected to be complete by March 1995. This phase II effort will receive $6,000,000 in section 26(b) federal assistance, the remaining $250,000 will be utilized by the Federal Transit Administration for technical support. The overall program schedule was extended by 6 months due to lower fiscal funding levels than those requested by the grantee.

There is no set date to "freeze" the prototype design. Rather the phase II, design validation, and phase III, prototype assembly, efforts will focus on converging and solidifying the ATTB design. It is expected that minor design adjustments will be made throughout the prototype assembly phase.

Mr. CARR. When will the first prototypes be delivered?

[The information follows:]

The first prototype ATTB is scheduled to be delivered by December 1996.

Mr. CARR. What is the total cost of the program, by fiscal year?

[The information follows:]

ESTIMATED COST OF THE ADVANCED TECHNOLOGY TRANSIT BUS PROGRAM

[In millions of dollars]

	Fiscal year							
	1992	1993	1994	1995	1996	1997	1998	Total
Federal	$4.0	$0.0	$6.25	$6.25	$6.25	$6.25	$3.25	$32.75
Local	1.0	0.0	1.50	1.50	1.50	1.50	0.90	7.90
Total	5.0	0.0	7.75	7.75	7.75	7.75	4.15	40.65

Mr. CARR. What is the cost sharing arrangement among the federal government, state and local government, and industry?

[The information follows:]

The federal government intends to contribute 80 percent of the total program cost with a required minimum local match of 20 percent.

Mr. CARR. What power plants are being considered for the ATTB? Who will decide what powerplant to use, and when will the decision be made?

[The information follows:]

The ATTB prototypes will be powered by reciprocating internal combustion (RIC) engines. Engine variants will be available that will operate on compressed natural gas, liquefied natural gas, alcohol, or diesel fuel. The engine will drive an electrical generator which will provide power to the propulsion motors located in the rear wheel hubs and will provide power for the ATTB's accessories. When or if new advanced engine designs become mature and available, it may prove advantageous to replace the RIC engine in the ATTB.

In production ATTB's, engine selection would be the responsibility of the transit agency.

Mr. CARR. Who is the program manager? What experience has the program manager had in developing major systems such as the ATTB?

[The information follows:]

Dr. Adi Arieli is the program manager for Northrop Aircraft Division, which is managing the industry consortium that is responsible for the development of the ATTB. Recently Northrop has developed major systems such as the B–2 bomber for the U.S. Air Force and the F/A–18 Hornet for the U.S. Navy and Marine Corps.

Mr. CARR. What are the pacing items in the design?

[The information follows:]

The ATTB will incorporate mostly off-the-shelf components and subsystems and utilize Northrop's vast knowledge and capabilities in the field of composite construction. However there are two specific items that are not yet mature, these are the propulsion hub motors and the energy storage flywheel. Significant recourses are being utilized to develop hub motors by both private industry and through several different multi-million dollar federally funded projects. It is expected that the hub motors will be mature by the later portion of the design validation phase of the program. The flywheel development is also receiving significant attention and recourses from both industry and Federal sources.

Mr. CARR. How is the fiscal year 1994 funding being used?

[The information follows:]

The fiscal year 1994 will be used to initiate phase II—design validation—which is a $9,000,000 effort. This phase will continue to prepare and refine the business and manufacturing plans along with performance requirements and detailed design drawings. This will lead to the manufacture of key system components. Testing methods to evaluate ATTB design and its structural integrity will be developed. A mock-up of the ATTB, including the operator work-station will be constructed. A mobile test platform for evaluating the propulsion, braking, and suspension systems will also be constructed.

Mr. CARR. Will any long lead time materials be purchased in 1994?

[The information follows:]

The long lead time materials to be purchased in 1994 are for the vehicle mockup and for the mobile test unit that will be used to verify the subsystems' designs for the prototypes that will come later on in the program.

Mr. CARR. What amount of funding does the Federal Transit Administration assume in the fiscal year 1995 budget for the ATTB?

[The information follows:]

The Federal Transit Administration requested $6,775,000 for the technology development program area for fiscal year 1995. This assumed that funding for the ATTB program would be the same as that included in the conference report on the fiscal year 1994 appropriation, $6,250,000.

Mr. CARR. What coordination of effort is maintained between the ATTB and the fuel cell bus program managed by Georgetown University?

[The information follows:]

On January 13, 1994, FTA conducted a program review technical meeting of participants involved with a number of advanced transit bus design programs, which included the ATTB program as well as the domestic fuel cell transit bus development program managed by Georgetown University. The purpose of the meeting was to serve as a forum or the sharing of technical information concerning each program. Minutes were taken and incorporated with presentation materials from all programs and provided to all participants. FTA will ensure that coordination and cooperation is maintained for all related programs including the ATTB and domestic fuel cell transit bus development program. Georgetown University and its team have been invited to participate in the ATTB program review meetings.

Mr. CARR. Could the ATTB use for its power plant the same fuel cell technology employed by the Georgetown project?

[The information follows:]

This is an issue that will become clearer as the domestic fuel cell transit bus development program completes its design of the fuel cell propulsion system necessary to power a full-size transit bus. FTA is ensuring close coordination between these efforts such that the fuel cell systems developed could be used as an ATTB power plant. Very preliminary plans at this point would place one of the fuel cell propulsion systems developed under the domestic fuel cell transit bus program in a prototype ATTB.

Mr. CARR. What is the proposed location of the rear door for the ATTB and what are the issues related to its position?

[The information follows:]

The proposed location for the rear door is behind the rear axle. This location is being utilized to minimize the likelihood of passenger injury due to falling under the rear wheels as the bus is pulling away from the stop and to permit the use of a continuous structure on both sides of the ATTB, thus providing more substantial protection for the passengers. It is anticipated that passenger flow within the vehicle would change over current designs as a result of this placement resulting in a higher use of front door departures, especially by persons with disabilities.

Mr. CARR. What is the estimated unit cost of an ATTB assuming annual production buys of 500, 1000, 1500, 2000 and 2500 buses?

[The information follows:]

Annual Production Rate:	*ATTB Unit Cost*
500	$380,000
1000	340,000
1500	320,000
2000	310,000
2500	300,000

Mr. CARR. How does the estimated life cycle cost of an ATTB compare with a conventional bus? Please indicate the reasons for any significant differences.

[The information follows:]

It is estimated that the life cycle cost of the ATTB will be substantially lower compared to a conventional bus. The weight reduction of the ATTB will be approximately 10,000 pounds or ⅓ of the curb weight of a conventional bus. This will reduce fuel consumption, brake and tire wear and will have a collateral effect of reducing road damage. In addition, the composite construction of the ATTB will significantly reduce corrosion effects. The ATTB will also be designed for ease of maintainability, reducing repair and maintenance time.

Mr. CARR. What is the nature and level of oversight of the ATTB program provided by the Federal Transit Administration?

[The information follows:]

The Federal Transit Administration will jointly manage, oversee, and actively participate in the project by supporting and attending review meetings, reviewing and commenting on technical reports/contract deliverables, maintaining frequent contact with Los Angeles County Metropolitan Transportation Authority's project manager(s) and other key program representatives, and will guide and reserve the right to redirect activities if needed.

KEY STATION PLATFORM EDGES

Mr. CARR. Regulations have been issued which require all transit stations determined to be "key stations" to have platform edges that are detectable for disabled riders by July 26, 1994. Who determined which stations are to be considered "key stations" and what were the criteria used?

[The information follows:]

Each public entity, through a planning and public participation process, was required to determine which stations on its system were key stations. The regulations implementing the Americans with Disabilities Act of 1990, provided the following criteria to be considered in making this determination:

1. Stations where passenger boardings exceed average station passenger boardings on the rail system by 15 percent, unless such a station is close to another accessible station;
2. Transfer stations on a rail line or between rail lines;
3. Major interchange points with other transportation modes, including stations connecting with major parking facilities, bus terminals, intercity or commuter rail stations, passenger vessel terminals, or airports;
4. End Stations, unless an end station is close to another accessible station; and
5. Stations serving major activity centers, such as employment or government centers, institutions of higher education, hospitals or other major health care facilities, or other facilities that are major trip generators for individuals with disabilities.

While the regulation required these criteria to be considered they were not mandatory. However, with the exception of New York and Philadelphia, transit systems did consider these criteria in determining "key stations." New York and Philadelphia had entered into agreements with groups representing persons with disabilities to make certain stations accessible. The identification of those "key stations" were deemed to be in compliance with the requirements of the regulation.

Mr. CARR. How many key stations are there nationwide? What percentage of total stations do they represent?

[The information follows:]

A total of 708 key stations have been identified by 34 transit properties. This represents approximately 26 percent of the total number of stations.

Mr. CARR. How many transit properties representing how many key stations will be in compliance by July 26th? How many others will be covered by voluntary compliance agreements? What is the legal situation for those authorities either under a voluntary compliance agreement or not in compliance as of July 26?

[The information follows:]

Twenty-five transit properties, representing 589 key stations, indicated in their plans submitted in 1992 that they would be in compliance by July 26, 1993. This includes 17 properties representing 284 key stations that have been granted time extensions by FTA.

There are nine properties that are covered under the voluntary compliance agreements. FTA has found these properties in probable noncompliance with the Americans with Disabilities Act of 1990 (ADA), and its implementing regulations at 49 CFR Parts 27, 37, and 38. The voluntary compliance agreement provides an opportunity for properties, through informal means, to come into compliance with the ADA. The FTA will monitor, for two years, the properties' compliance. ADA also provides for a private right of action by individuals who believe their rights have been violated under the ADA.

Mr. CARR. How many stations have been designated "key" in New York City out of how many stations in total?

[The information follows:]

Transit service in New York City is provided by the Metropolitan Transportation Authority (MTA). The MTA is comprised of three operating entities, the Long Island Rail Road (LIRR), Metro-North Commuter Rail Road (MNCR) and the New York City Transit Authority (NYCTA). The number of key stations and total stations for each organization are tabulated below:

	Key	Total
LIRR	18	134
MNCR	13	119
NYCTA	54	469
MTA	85	722

These key stations were determined as a result of litigation and a subsequent agreement on October 4, 1984, between the MTA and the Eastern Paralyzed Veterans Association, Inc.

Mr. CARR. How do you respond to the comment that designating only 26 percent of total stations as "key stations" does not really help disabled transit riders because it provides no uniformity?

[The information follows:]

The task of making the nation's rail stations fully accessible to persons with disabilities must be considered as an evolutionary process. While the initial thrust of the Americans with Disabilities Act of 1990 (ADA), was aimed at key stations the act also impacts the balance of the rail stations. As stations are modernized, renovated or altered they are required to conform to the accessibility standards developed in response to the ADA. In addition, all new stations are required to be accessible. Therefore, with the passage of time all rail stations will ultimately become fully accessible. Until that time, persons with disabilities are eligible to use accessible paratransit service as required under ADA.

Mr. CARR. What is the status of the platform edge issue with the Washington Metropolitan Area Transit Authority?

[The information follows:]

The Washington Metropolitan Area Transit Authority (WMATA) has recently sent in a letter to Secretary Peña making several requests regarding the platform edge. WMATA is requesting:

1. A new rulemaking on this issue;
2. An exemption from the requirement;
3. To enter into an agreement with the Department of Transportation to undertake additional tests on various platform edge systems; and
4. Approval for an alternate edge treatment which will add eight inches of flame finished granite to the existing configuration.

The requests made by WMATA are currently under review and a response will be forthcoming.

On December 9, 1992, the Department denied WMATA's request to be "grandfathered" from complying with the regulation. More recently, the Federal Transit Administration was unable to provide WMATA with a finding of equivalent facilitation for the existing platform edge treatment on December 17, 1993. WMATA did not demonstrate how a flat surface 18 inches (46 cm) wide provides equivalent detectability to a textured surface 24 inches (61 cm) wide with truncated domes.

Mr. CARR. The regulations require transit properties to use truncated domes or have equivalent facilitation to allow detection by 90 percent of disabled riders; is that correct?

[The information follows:]

The regulations require that platform edges bordering a drop-off not protected by platform screens or guard rails have detectable warnings. The pattern of the required detectable warning consists of truncated domes whose dimensions are stipulated as is the dome pattern. The detectable warning shall be 24 inches (61 cm) in width running the full length of the platform. The 24 inch (61 cm) width is sufficient to enable 90 percent of visually impaired travelers to come to a stop before reaching the platform edge. The regulation provides for departures from the technical standards where alternate designs and technologies will provide substantially equivalent or greater access to and usability of the facility.

Mr. CARR. What is your opinion of WMATA's proposed equivalent system which would retain the existing lighting system and add 8 inches of textured granite blocks?

[The information follows:]

The proposal from WMATA is very recent and is still under review. However, unless WMATA can satisfactorily demonstrate that such a system is at least as detectable as the one specified by the ADAAG, the approval cannot be expected.

Mr. CARR. Isn't it true that WMATA intends to put its equivalent facilitation at all of the stations in the system, and not just those considered "key"? Have any other authorities agreed voluntarily to install detectable edges at all stations, and not just those determined to be key stations?

[The information follows:]

WMATA has stated its intention to install a type of detectable warnings at all its stations. To our knowledge, no other system has stated such an intention of retrofitting all their existing stations. However, several systems including BART and Metro-Dade have detectable warning surfaces which conform with ADAAG in all their stations.

Mr. CARR. What is the status of the research being conducted by the FTA concerning the durability and maintainability of the rubberized truncated domes? When will the research be completed and a report prepared?

[The information follows:]

The FTA has sponsored both human factors research and engineering tests and evaluation. As part of the human factors research, the detectability of 13 different products had a greater than 95-percent detection rate. A test of safety and negotiability of nine products on a sloped (1 in 12) surface has been undertaken and completed. The 40 subjects for this test were individuals with severe disabilities. It was concluded from this effort that individuals with physical impairments can negotiate detectable warning surfaces. The above two studies are being published by the Volpe Center for the FTA.

The FTA engineering tests and evaluation consist of three efforts: information dissemination; laboratory testing of detectable warnings; and, a field evaluation of detectable warnings at three transit properties. Under the information dissemination effort a National Implementation Panel has been formed. The Panel's first meeting took place in December and the final meeting will take place on May 11, 1994. The lab tests are complete, and a summary of the results is contained in the draft interim report, which is available now along with interim performance results from the field evaluation. A final report will be available by the end of June.

Mr. CARR. Questions have been raised concerning the toxicity and flammability of certain types of truncated domes. How serious an issue is this? What research has the FTA or others conducted on this matter?

[The information follows:]

In order to have a fire, an ignition source is needed. The ignition sources are discarded cigarettes, vandalism, and an under-car fire. Regulations prohibit smoking on transit property, and the outer portion of the platform makes any smoking fairly obvious, which would tend to keep smokers away from the truncated domes. Similarly vandals prefer a convert location for their acts. An under-car fire would be more of a problem for the interior of the vehicle, namely the flooring, rug, mats, seats, etc., and any passengers on the vehicle. In order for an under-car fire to ignite the platform, the fire would have to come up beside the car and ignite the tiles from above. It is difficult to ignite a tile from above or to heat the station air to the point where flashover occurs (approximately 1,000 degrees Fahrenheit), and the heat required to heat the large volume of station air would not be available. There are also detectable warning products made of ceramic, concrete, and metal which do not burn.

Three products (Armor tile, Pathfinder resilient, and Tac Strip) were tested for flame spread (ASTM E–84) under the Metro North Testing Program. The results indicate that these materials are no more flammable than the carpets or tiles that are used in the vehicles.

The Pathfinder tile, a polymer composite, has been installed at BART and Sacramento in California and at Metro-Dade in Miami for at least 6 years. During this time there has been no report of fires involving these products. It appears that detectable warning tiles made of materials which are combustible are no more combustible than some flooring materials (tiles, carpeting) already in use in transit. There has been no concern on the part of the transit industry over the fire potential of these flooring materials. In contrast, the recent incidents involving visually impaired patrons that fell from platforms onto the tracks demonstrates a clear hazard.

A toxicity test was also performed as part of the Metro North Program (EPA–310). This test leached out eight toxic elements: silver, arsenic, barium, cadmium, chromium, mercury, lead, and selenium. Both the Pathfinder and the Armor tile showed very low levels of these elements. According to a laboratory in Toronto that performed toxicity tests on the Pathfinder tile, this product complies with the toxic gas generation criteria used by the Toronto Transit Commission.

The research and hazard analysis on this issue indicate that it does not present a serious hazard.

Mr. CARR. What is the total cost to transit authorities to install and operate detectable platform edges at their stations?

[The information follows:]

The estimated cost of installing detectable warnings at rail station platform edges was provided for only 365 of 708 key stations. This information was contained in the key station plans submitted to the Federal Transit Administration by the transit properties in July 1992. The date provided covers a wide difference in the installation techniques used and materials to be used. However, extrapolating from the data provided indicates that installing detectable warnings at each of the 708 key stations will cost approximately $63 million. To install detectable warnings at the platform edges of all the current 2,679 stations will ultimately cost approximately $239 million. These costs are presented in 1992 dollars.

Mr. CARR. How many of Amtrak's stations are deemed to be "key"? Why is the number of Amtrak's key stations so low?

[The information follows:]

The DOT regulations require public entities that provide commuter, light and rapid rail service to submit key station plans to the Federal Transportation Administration. Amtrak, which operates intercity rail service, was not required to submit a plan for its intercity service. Each entity providing commuter service, through a planning and public participation process, identified key stations on their respective systems. Amtrak, as owner of some of the commuter stations identified as key stations has the responsibility for making them accessible. Amtrak is therefore responsible to make the following eight key stations accessible: Baltimore, MD; Baltimore Washington International Airport, MD; Chicago Union Station, IL; New Carrollton, MD; New York Pennsylvania Station, NY; Old Saybrook, CT; Washington Union Station, DC; and Wilmington, DE.

LIVABLE COMMUNITIES

Mr. CARR. The 1995 discretionary grants budget includes a new proposal of $30 million for an effort called livable communities. According to the justification material, this effort is authorized under title 3 of the Federal Transit Act. What is the specific provision in the Transit Act that you believe authorizes this activity?

[The information follows:]

Each project selected for funding from the $30 million livable communities initiative will be eligible under the section 3 program which permits the funding of capital projects within the bus, new starts or fixed guideway modernization activities. For such capital purposes, we plan to rely primarily on sections 3(a)(1)(D) and 3(a)(1)(F).

In addition to the $30 million we are requesting under the section 3 program for capital purposes, we plan to allocate funding under the National Program of Transit Planning and Research [section 26(b)] for planning and technical assistance purposes.

Mr. CARR. Is the livable communities initiative intended to be completely discretionary with the administrator of the FTA or the Secretary of Transportation?

[The information follows:]

We are proposing that the Administrator approve the funding of projects selected as the result of a public solicitation process. Projects would be rated and selected according to objective criteria.

Mr. CARR. Will communities have to request funding and submit applications under the livable communities initiative?

[The information follows:]

Yes. We plan to solicit grant proposals by way of a Federal Register notice so that all states and public bodies will have an equal opportunity to participate in this new initiative.

Mr. CARR. The budget materials indicate the program will incorporate zoning, land use and urban design issues. Please elaborate on exactly how the new program would be focused.

[The information follows:]

We intend to target grants to transit and transit-related projects where land use planning, zoning and urban design encourage alternatives to automobile use. Where such alternatives as walking, transit, and biking are designed and built into the community, mobility is improved and the use of the automobile becomes an option rather than an essential. Further, housing is improved along with greater educational and employment opportunities. We would promote transit and transit-related projects located in areas that permit mixed-use development so that shopping, daycare centers, and other conveniences can be co-located with transit facilities thereby encouraging transit ridership. Further, we would encourage well planned transit service and full community participation in the transportation decisionmaking process.

Mr. CARR. The justifications state: "Livable communities monies will generally be available as a supplement for approved projects receiving grants via section 8, 9, 18, or 3 programs, grants under congestion mitigation, air quality, and surface transportation programs of ISTEA, and other federal programs." If the livable communities monies are merely supplements, why is a separate program needed?

[The information follows:]

Our intent is not to establish a large, permanent program. Rather, we have requested separate funding in order to highlight and emphasize the benefits of incorporating livable communities concepts into transit projects. By itself, $30 million would not fund very much in the way of captal grants. However, where a grantee is planning a project using its section 9 apportionment or other federal funding source, the availability of some additional discretionary money might encourage that grantee to modify its project to meet some of the livable communities concepts.

Mr. CARR. Give some examples of the types of capital programs that might be funded under the livable communities initiative. Could any of these examples not be funded under other programs?

[The information follows:]

Projects that could be funded under the section 3 portion of the Livable Communities Initiative might include transit or transit-related projects such as connections to shopping areas, lighting, construction of transit facilities, sidewalks and skyways, landscaping, open spaces, and customer information systems. All of these activities would be eligible for funding under sections 3, 9, and many other federal transit and highway programs. Additionally, section 26 transit planning and research funds could be used to complement the capital program through activities such as community participation in transit planning and land use and urban design studies. The purpose of separately identified funding for livable communities is to highlight the benefits to transit and the community of adopting certain design and planning concepts.

Mr. CARR. Will livable communities capital grants be 100 percent federal money, or will a non-federal contribution be required?

[The information follows:]

Under section 3, the federal share for any project may not exceed 80 percent. We will comply with this requirement.

Mr. CARR. Much of the description for the livable communities program relates as much to urban development as to transit. For example, from the justification material: "Goals of the program include: To provide capital grants for such activities as transit related items such as pedestrian walkways, landscaping, etc.; to stimulate greater involvement in the local planning and design process by neighborhood organizations, small and minority businesses and other stakeholders who are not currently participants in the process; to serve as a companion program to the President's empowerment zones, enterprise communities and rural investment initiatives."

If such an initiative is to be undertaken, why should it not be funded in the Department of Housing and Urban Development instead of the Department of Transportation?

[The information follows:]

Traffic congestion, transportation mobility and transit ridership are affected tremendously by land use, urban design and zoning policies. Further, the highway and transit planning programs are the only federally funded, comprehensive planning programs. Thus, it is most appropriate that livable communities, which emphasizes transportation planning, should be funded within the Federal Transit Administration's appropriations. However, we fully recognize the interrelationship of transportation planning with housing, economic development, environment, and security and have already approached other federal agencies to assist us in developing the livable communities initiative. This interrelationship and cooperation among several federal agencies is also recognized in the President's recent empowerment zones/enterprise communities program in which FTA is an active participant. This program's primary purpose is economic development whereas livable communities' primary focus is transportation planning and improvements.

Mr. CARR. Will the livable communities initiative be subject to the President's new investment executive order?

[The information follows:]

The Executive Order on "Principles for Federal Infrastructure Investments" applies to budget submissions beginning with fiscal year 1996 and will include FTA's discretionary grants program of which the livable communities is an element.

Mr. CARR. What level of funding does the Federal Transit Administration envision for the livable communities initiative in future years?

[The information follows:]

At this point we do not expect a need for more than the $30 million per year we are now requesting under section 3. However, based on the quality and diversity of applications we might receive when the program is officially announced, that amount might have to be adjusted.

TARGETING TRANSIT FUNDS FOR CONGESTION RELIEF

Mr. CARR. The administration's budget proposes that 10 percent of transit section 9 urban formula grants be dedicated to projects that help reduce traffic congestion.

Since transit service in general is associated with congestion relief, what is the purpose of the proposed set aside of 10 percent of Section 9 funds for projects that help reduce traffic congestion?

[The information follows:]

FTA's incentive grants activities build upon the traffic congestion management system requirements in the recent interim final rule implementing section 1034 of ISTEA. In fiscal year 1995, FTA will implement a congestion relief transit incentive grant program focused at providing incentives for the locals to actively consider congesting mitigation efforts similar to those required under the joint FTA/FHWA planning regulations.

Mr. CARR. How would this set aside work?

[The information follows:]

Ten percent of the funds made available for section 9 will be designated for the congestion relief transit incentive grant program ($265 million in 1995). The 1995 apportionment notice published in the Federal Register will show a set-aside from each urbanized area over 50,000 in population, or the appropriate Governors apportionment by state. Incentive grant funds can be used for any eligible section 9 project that would alleviate traffic congestion in the urban area. Each grantee that certifies as part of its section 9 grant application that the project proposed for funding will contribute to decreased traffic congestion in the urban area will receive the 10 percent set-aside.

Mr. CARR. How will the Federal Highway Administration determine whether projects will reduce congestion? What criteria will be used?

[The information follows:]

FTA will rely on the grantees to self-certify that proposed projects would meet the requirements specified in the joint FHWA/FTA management and monitoring systems planning regulations. Examples of traffic congestion strategies include, but are not limited to: (1) transportation demand management measures, (2) measures to encourage high occupancy vehicle (HOV) use, i.e., ridesharing/vanpooling, (3) public transit capital improvements and (4) purchase of systems to improve transit operations, i.e., traffic signal preemption for buses. FTA will review the implementation of this provision during the normal triennial review process.

Mr. CARR. Why was 10 percent selected?

[The information follows:]

Our intent in preparing the congestion relief incentive grants activity is to highlight the need for local officials to begin actively considering and implementing congestion management projects. The 10 percent level was found to be a reasonable percentage to emphasize the importance of these activities.

Mr. CARR. What influence is the proposed set aside expected to have on the types of projects selected for funding?

[The information follows:]

We expect that the planning organizations and the transit operator will have increased sensitivity to forwarding projects that are the types of projects are part of the traffic congestion strategies to be required by the management and monitoring systems of the planning regulations.

CHANGING THE TRANSIT MIND-SET

Mr. CARR. The Federal Transit Administration budget notes there is a need to change the mind-set of the country toward a better understanding of the value of transit—its economic as well as clean air benefits. In support of this change, the administration's proposed budget contains a new program activity focusing transit on shaping the cities of the future by incorporating zoning, land use and urban design principles into redevelopment of older urban cores and development of new non-urban satellite communities.

Why have existing federal transit programs not been able to change the mind-set of the country toward a better understanding of the value of transit?

[The information follows:]

Federal transit programs have not been able to change the mind-set of the public because they cannot compete against the primary driving force behind automobile use: the hidden subsidies enjoyed by automobile users, particularly solo commuters. For example, fuel and vehicle taxes cover only 60 percent of the cost of building and maintaining roads. Heavy trucks inflict at least twice the pavement damage charged to their account. Traffic-related police services, courts, and emergency vehicles are also funded without regard to vehicle use. Moreover, employer-provided parking is subsidized through our tax policies.

FTA is exploring several options to mitigate the effects of these hidden subsidies, such as tolls on highly congested highways and increased parking fees, which offer much greater potential to influence travel behavior. Toward this end, FTA is working to implement the congestion pricing pilot program and a parking cash-out policy. The cash-out policy would enable employers to offer their workers the option to take a taxable cash commuting allowance, or a non-taxable transit or ridesharing benefit, in lieu of free parking.

LIVABLE COMMUNITIES

Mr. CARR. To what extent can a new transit program be expected to alter existing zoning, land use and urban design patterns?

[The information follows:]

The livable communities initiative is designed to offer local planners the opportunity, within a familiar existing program, to make land uses more pedestrian-oriented and therefore transit-friendly in the immediate vicinity of transit facilities. Such enhancements will more effectively incorporate transit projects into communities and thereby increase their benefits to the community. The proposed initiative will expand the options available to local decisionmakers when they are faced with the difficult decisions that transportation and land use conflicts bring to the fore. The enlarged public participation in the planning process required under new joint planning regulations will help to create an institutional framework receptive to livable communities ideas.

Local planners and zoning boards make their decisions on the basis of the options available. In the absence of high capacity for transit, for instance, zoning boards often are compelled by the facts to require enough parking to meet all travel demand. Obviously, this is not necessary in the presence of high capacity transit services. Similarly, the livable community initiative will enlarge the options for local officials facing difficult decisions where transportation and land use issues intersect. Zoning boards will be much more willing and able to restrict parking construction in transit-friendly environments.

Furthermore, the newly issued FHWA and FTA joint planning regulations encourage zoning, land use, and design decisions that support the particular transportation investments being undertaken.

The trend in local transportation decisionmaking since the adoption of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) clearly has shifted into a mode in which few major investments are possible without concessions to environmental concerns, costs, land use, and other local constraints. Many of these constraints exist independently of Federal programs. In either event, concessions to institutional, financial, and even physical realities will lead inevitably to changing land use principles which will incorporate new zoning and design concepts.

This is the context in which all major transit investments will occur. Clearly, transit-oriented zoning, land use and design concepts to support transit investments will operate consistently with these wider trends and push decisionmaking even farther in the same direction. In this way, transit will make feasible new land use and design concepts.

Mr. CARR. How many communities can be expected to benefit from this proposed program in the next fiscal year?

[The information follows:]

A large number of existing projects are eligible to be enhanced by the livable communities initiative. Apart from the limitation of funds available, there is no constraint on the number of local communities that could receive enhancement grants over a 12 month period. A reasonable estimation, given the likely scale of these enhancements, such as transit-oriented day care centers and the redesign of transit stations, would be between 10 and 15 projects over the first 12 months following enactment of the appropriation.

Mr. CARR. How will participation in the proposed program be determined?

[The information follows:]

These will be enhancements to existing projects. We intend to evaluate proposed enhancements as they are received as if they were normal enhancements. The process will be open to all eligible capital grant recipients and it will be managed by FTA's regional offices and the Office of Grants Management. We are looking for enhancements which will demonstrate the principles of livable community design, which include making transit stations more of a focal point for neighborhood activities, investments that invite private sector investments in the community near the transit station. Each proposed enhancement will be evaluated in its own terms, its own goals, consistent with the pedestrian-oriented mixed use concepts of livable communities.

TRANSIT EXPECTATIONS IN MEETING UNMET TRAVEL DEMAND

Mr. CARR. In its report on the status of conditions and performance of the Nation's highway systems, the Federal Highway Administration estimates that increases in highway capacity cannot keep pace with the increase in travel demand, especially in urban areas. Specifically, FHWA reports that 83,000 lane-miles of urban highway capacity cannot be built over the next 20 years because of various constraints on new highway construction. The Federal Transit Administration's budget notes that well chosen mass transportation investments can play a major role in meeting a portion of the estimated annual 627 billion passenger miles in unmet travel demand.

What portion of the estimated unmet travel demand of 627 billion passenger miles can be met through mass transportation investments?

[The information follows:]

In our 1992 Section 308 Report on Transit Conditions, Performance, and Needs, we estimated that 10 percent of the FHWA's estimated unmet travel demand represented by 34,000 foregone lane miles could be handled by transit, transportation systems management, and travel demand management measures. The 627 billion passenger miles of travel demand is an estimate of the amount unmet at the end of the 20 year analysis period in the highway needs study. We are now in the process of updating this estimate for our 1994 report. We expect the transit share to be somewhat higher, based on a more detailed analysis of the likely location where these constraints on highway construction are the most severe.

Mr. CARR. What other strategies or investment alternatives will need to be employed to cope with the forecasted unmet travel demand?

[The information follows:]

The Federal Highway Administration used a mix of transportation system management and travel demand management techniques in their needs estimation approach. Transportation system management techniques include a variety of measures to increase the carrying capacity of existing road space, including signalization improvements, traffic engineering changes, and Intelligent Vehicle-Highway System improvements. Travel demand management techniques include high-occupancy vehicle lanes, car and vanpool matching programs, employer-based commute alternative programs, and congestion and other highway pricing. All of these measures can reduce the need for construction of new highway capacity.

Mr. CARR. What types of mass transportation investments would be most responsive to this unmet travel demand?

[The information follows:]

The best type of transit investment will depend on the specific location where the travel demand is to be addressed. In the center of cities with existing fixed-guideway systems, this could involve additional vehicles to allow more frequent services on existing lines. In the central part of other large urban areas, new fixed guideway systems, or bus service expansion would be needed. In the outskirts of areas with existing systems, extensions would be useful. Improved bus feeder services would be needed in areas with both new and existing fixed guideway systems. In smaller areas and in the suburbs of all areas, bus service expansion is likely to be the best choice.

TRANSIT NEEDS ASSESSMENT

Mr. CARR. The Department of Transportation's January 1993 report on the condition and performance of highways, bridges and transit notes that the most accurate way of gauging the condition of the bus fleet would be to have information on the results of inspections, using standardized definitions of condition, of a sample of the vehicles. However, such information is not available. Therefore, needs are assumed based on the actual age of the bus and paratransit fleet. This results in an estimated urban bus backlog of $1.9 billion.

The bus age proxy is further extended in DOT's January 1993 report to cover bus facilities. As the report notes there are no rigorous methods for estimating the backlog of bus facilities, thus it is assumed for purposes of the study that the condition of transit facilities is, on average, the same as the condition of buses. Consequently, DOT estimates the backlog of urban transit facilities is also $1.9 billion.

Moreover, the other component of transit needs—rail—is derived from DOT's rail modernization study published in 1987. Inspections were conducted during the period November 1983 through May 1984, and the results are still being used to estimate a rail system backlog of $13.7 billion.

Why are transit bus needs assessments based on a proxy using vehicle age rather than through actual inspections using standardized definitions of condition?

[The information follows:]

FTA believes that bus age is a good proxy for conditions and that bus age and condition are generally quite closely related. Historically, the section 15 reporting system has required data only on the age of the bus fleet. Data is also included on the average odometer reading. Analysis has indicated that taken together, age and mileage are a good indicator of the need to replace a transit vehicle. FTA's useful life policy is based on a minimum life in transit service of 12 years before FTA will provide financial assistance in replacing a vehicle. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) requires states to develop public transportation management systems (PTMS). The regulations implementing this requirement were issued on December 1, 1993, and require the states to assess the conditions of their transit infrastructure. We expect that many States will implement more detailed data collection on bus conditions as a part of the PTMS development process. We expect to use this information in the development of future transit needs estimates.

Mr. CARR. Given that the actual condition of transit vehicles can vary because of factors such as maintenance practices, usage, and operating climate, how accurate a proxy is vehicle age for assessing bus backlogs?

[The information follows:]

We believe that bus age is extremely accurate for this purpose. FTA's policy on useful life calls for replacing vehicles only after they achieve certain minimum times in service. Further, experience has shown that vehicle replacements can be accurately planned based on the time a vehicle remains in service. In addition, for the purposes of assessing backlogs at the national level, the variations in conditions based on other factors, such as maintenance practices, climate, and usage, tend to be minimized. For example, the average amount of usage of a vehicle is about 3,000 revenue vehicle hours per year. There is very little variation about this average based on such factors as urban area size, type, or region of the country. Thus, calculating national bus replacement backlogs based on fleet age should give an accurate picture of the need.

Mr. CARR. How accurate is vehicle age in assessing the backlog for transit facilities?

[The information follows:]

We believe that the analysis approach used in the 1992 section 308 report on transit conditions, performance, and needs to calculate bus facilities backlog was the best available at the time. Review of transit operator capital investments over the last several years has indicated that the pattern of spending on bus facilities compared with vehicles has remained quite stable over time. This analysis indicates that approximately the same amount has been spent each year on facilities as on vehicles. This is the basis for the estimate of facilities backlog as being approximately equal to the vehicle backlog.

To improve on this estimate, FTA commissioned ATE Management and Service Company to assess the current conditions of bus maintenance facilities. The results of this analysis were described in the FTA report "Bus Support Facilities: Conditions and Needs," published in January 1993. This is the first time FTA has conducted a specific review of facilities. FTA intends to use the results of this study in its 1994 Section 308 report and to continue working with the industry and the States to ensure that the estimates contained in this report accurately represent bus maintenance facility conditions, through the newly required public transportation management systems.

The ATE study of facilities assessed the current condition and five-year capital needs (1993–1997) for transit operator bus support facilities. In order to determine the condition of the facilities, transit operators were asked to rate each of their facilities relative to how well it sustained the bus maintenance support function, and provide information on the age of each. The data was gathered in calendar year 1992. The rating for each facility was along a spectrum of excellent, good, adequate, substandard or poor. According to the transit operators, more than half (57 percent) of the transit industry's bus support facilities are in "good" or better condition for their current mission. The remaining facilities are categorized as "adequate" (18 percent), "substandard" (14 percent), and "poor" (10 percent). Two-thirds of the bus maintenance facilities are less than twenty years old. The remainder range in age from 21 to 99, with the age range of 21–30 representing the next highest percent (7 percent).

Mr. CARR. A decade has now passed since the inspections were conducted for the rail modernization study. With what precision can these inspections be used today to determine rail system backlogs? What plans are under way to update this study?

[The information follows:]

Because the utility of the estimates made in the original Rail Modernization Study was becoming more limited with time, FTA commissioned an update of that study. The results are reported in the FTA Report, Modernization of the Nation's Rail Transit Systems: A Status Report, published in August 1992. This study developed an updated assessment of the physical condition of the rail systems, using the original Rail Modernization Study, published in April 1987, as a starting point. On-site inspections were not conducted as in the earlier study, which relied on such inspections conducted during 1983 and 1984. Rather, the transit authorities were requested to comment on the original conditions obtained from the earlier on-site inspections and provide updated estimates of the condition and levels of improvement still required to bring these transit systems up to "good" condition. This analysis was conducted in 1992 and provided a benchmark on the progress the major urban transit authorities have made in rail modernization since 1984.

In the Rail Modernization Studies, each system element was evaluated to determine its condition, at that time (as well as to establish the improvements needed and the associated capital costs). Specific definitions were developed for each of five condition levels ("excellent," "good," "fair," "poor," and "bad."). Rail system conditions range from poor to excellent, with good defined as the desirable level over the long term.

The update indicates that the Rail Modernization backlog has been reduced. Where the 1987 Report indicated a total cost to restore all rail equipment and facilities to a good state of repair at the end of a ten year period at $24 billion (1991 dollars), the update indicated that the cost to restore had fallen to $16.7 billion in 1991 dollars. In addition, the report found substantial progress in improving the condition of many portions of the Nation's rail systems. Maintenance yards went from only 17 percent in good or better condition to 64 percent and maintenance buildings went from only 28 percent to 52 percent. Also, stations improved significantly from 29 percent to 66 percent, and bridges from 33 percent to 61 percent.

Nevertheless, a substantial portion of rail infrastructure is still in need of investment to return it to good conditions. Most significantly, over 73 percent of elevated structures need major investments. In addition, overhead (43 percent), third rail (41 percent), and maintenance facilities (48 percent) also have significant shares in less than good conditions, requiring major investments.

INCREASING OPERATING COSTS

Mr. CARR. According to the Department of Transportation's 1993 annual report on National Transportation Statistics, transit operating expenses increased from $6.2 billion in 1980 to $16.8 billion in 1991. At the same time, unlinked passenger trips from all types of transit services remained relatively stable at about 8.6 billion trips for both 1980 and 1991.

What are the major factors that result in operating costs increasing, while the number of unlinked passenger trips remains steady?

[The information follows:]

Unlinked trips and total operating costs are not the most accurate way to view transit performance. While transit operating costs expressed in current dollars have increased, when adjusted for inflation and the amount and type of service provided, operating costs are stable. Since 1985, the real (inflation adjusted) cost per equivalent vehicle mile has stayed constant. In addition, trip lengths have increased by 8 percent since 1980. Thus, the real cost per passenger mile has also been fairly constant since 1985.

Mr. CARR. Why has the steady increase in operating assistance not been accompanied by an increase in passenger trips?

[The information follows:]

The level of operating assistance has not increased fast enough to keep up with operating needs. As a result, the average fare per passenger mile has increased over 30 percent since 1980. Also, capital investment has not been sufficient to expand service or make much improvement in transit conditions. Therefore, because it has been underfunded, transit has done remarkably well just to maintain unlinked trip levels. Also, with increased suburbanization, transit trip lengths have increased, making each trip more costly to serve.

Mr. CARR. What do you envision for transit operating costs and passenger trips in the next five and ten year periods?

[The information follows:]

Given the requirements of the Clean Air Act Amendments and the country's commitment to improve air quality, the country's concern about over-reliance on imported oil, the continued increase in highway congestion, and the increasing costs and difficulty of constructing new highways, FTA expects an increase in transit ridership and service over the next five to ten years. This assumes that investments in transit are adequate to allow for increased service levels necessary to handle the demand. Total operating costs should increase along with the increase in service, but costs per vehicle mile traveled, adjusted for inflation, should remain constant. In the absence of adequate investments, transit will do well to keep its present patronage levels, as it has done for the last several years.

INCREASED STATE SUPPORT FOR TRANSIT OPERATING ASSISTANCE

Mr. CARR. Transit revenue, principally from the farebox, accounted for $7 billion of transit's total revenue of $16.5 billion in 1992, according to preliminary data reported by the American Public Transit Association. The remaining funds represent local, state and federal operating assistance, with the majority of assistance coming from local support. Nevertheless, the transit operating support received from local governments represents a sizable drop compared to the previous year, as local governments contributed

$5.6 billion in 1991 but their contribution fell to $4.7 billion in 1992.

Is the decrease in local operating assistance and increase in state assistance represent an anomaly or an indicator of a future trend?

[The information follows:]

The change does not represent a trend. It is a result of accounting changes at several transit operators, most notably the New York City Transit Authority, the Chicago Transit Authority and the Santa Clara County Transit Authority.

Mr. CARR. How many states increased their transit operating support in 1992?

[The information follows:]

According to the American Association of State Highway and Transportation Officials (AASHTO), state operating assistance for transit remained essentially constant at $2.26 billion between 1991 and 1992. Eleven states showed increases (California, Connecticut, Delaware, District of Columbia, Florida, Illinois, Kansas, Maryland, Michigan, Nebraska, and Wisconsin). Seven states (Arkansas, Iowa, Minnesota, New York, Oklahoma, Pennsylvania, and Puerto Rico) showed declines. None of the changes were significant.

INFLATION IN TRANSIT PROGRAMS

Mr. CARR. The American Public Transit Association explains that using the consumer price index or GNP deflator to adjust for monetary inflation for transit is inappropriate, since transit systems do not buy the same items that consumers or national businesses do. Consequently, the Transit Price Index was created to properly account for the changing costs of items purchased by the transit industry, such as labor services, insurance, other services, construction materials, and industrial supplies. Use of the TPI shows that transit inflation from 1980 to 1992 increased 93 percent, compared to 70 percent for the CPI and 66 percent for the GNP deflator.

Why did the cost of transit items grow faster than the cost of other goods and services during the 1980 to 1992 period?

[The information follows:]

The consumer price index (CPI) represents the cost of a mix of goods and services purchased by the average consumer, while APTA's transit price index (TPI) is an attempt to more precisely reflect the type of costs involved in operating a transit agency. We would not expect the rates reported by these indices to be equal since the TPI has a much narrower focus than the CPI. However, the higher rate of inflation suggested by the TPI indicates that the costs of the various "inputs" in providing transit services have risen faster than average, and that much of the cost involved in operating a transit agency is external to the agency; that is, not under the control of management.

The cost of labor is a major component of the TPI, but not the CPI. Labor costs do not change as rapidly as the CPI since labor contracts must be renegotiated in response to changes in the economy. Thus, changes in labor costs lag behind changes in costs in the general economy, sometimes by several years. This, in fact, represents what happened during the severe recession of the early 1980's when labor costs continued to rise as prices fell. After contracts were renegotiated, transit operating costs again reflect trends in the general economy. Under these conditions, transit has done quite well in maintaining service levels while holding real total operating costs constant since 1985.

Mr. CARR. What do the TPI results forbode for future transit operating assistance?

[The information follows:]

Given the industry's recent success in holding down real total operating costs, the administration's success in holding down general inflation, and an increase in federal capital assistance to modernize facilities, vehicles and equipment, FTA expects the need for federal operating assistance to ease.

SECTION 9 FORMULA APPORTIONMENTS

Mr. CARR. Last year the Federal Transit Administration reported that for many cities and states the capital portion of the section 9 formula program had either run out of money entirely or was on the verge of doing so. FTA explained that this funding problem arose because funds were shifted from the formula program to the discretionary program. As a result, last fiscal year, in the governors' component of the section 9 program for urbanized areas between 50,000 and 200,000 population, 25 states had no capital money available to them. In addition, a similar condition existed in some larger urbanized areas, such as in Montgomery, Alabama and Detroit, Michigan.

What does the funding profile for the capital portion of the section 9 formula program look like this fiscal year?

[The information follows:]

The fiscal year 1994 section 9 program level is $2.24 billion; the operating assistance limitation if $802 million. The capital only portion of the fiscal year 1994 program is therefore 64 percent of the total.

The chart below displays the amount of the total fiscal year 1994 apportionment for each urbanized area that is available for capital and operating, and the percentage of capital within the total apportionment to the area.

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS

AMOUNTS APPORTIONED TO URBANIZED AREAS OVER 1,000,000 IN POPULATION:

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 OPERATING ASSISTANCE	FY 1994 CAPITAL ASSISTANCE	PERCENTAGE OF TOTAL APPORT. FOR CAPITAL
Atlanta, GA............................	$30,083,986	$6,074,856	$24,009,130	80%
Baltimore, MD...........................	26,054,703	9,723,299	16,331,404	63%
Boston, MA..............................	61,479,284	18,255,443	43,223,841	70%
Chicago, IL-Northwestern IN............	158,569,976	50,576,686	107,993,290	68%
Cincinnati, OH-KY......................	11,504,677	5,266,860	6,237,817	54%
Cleveland, OH..........................	19,754,267	9,636,608	10,117,659	51%
Dallas-Fort Worth, TX..................	28,050,854	8,641,578	19,409,276	69%
Denver, CO.............................	17,088,381	5,899,540	11,188,841	65%
Detroit, MI............................	29,515,588	21,393,840	8,121,748	28%
Ft Lauderdale-Hollywood-Pompano Bch, FL.	15,698,048	7,337,331	8,360,717	53%
Houston, TX............................	32,776,647	9,080,481	23,696,166	72%
Kansas City, MO-KS.....................	7,923,974	4,462,727	3,461,247	44%
Los Angeles, CA........................	142,710,839	57,061,393	85,649,446	60%
Miami-Hialeah, FL......................	28,469,483	8,381,597	20,087,886	71%
Milwaukee, WI..........................	14,098,369	5,461,011	8,637,358	61%
Minneapolis-St. Paul, MN...............	19,247,771	7,281,433	11,966,338	62%
New Orleans, LA........................	12,941,334	6,605,306	6,336,028	49%
New York, NY-Northeastern NJ...........	498,647,056	132,150,192	366,496,864	73%
Norfolk-Virginia Beach-Newport News, VA.	8,533,816	4,195,723	4,338,093	51%
Philadelphia, PA-NJ....................	92,632,339	31,812,065	60,820,274	66%
Phoenix, AZ............................	17,783,269	4,704,649	13,078,620	74%
Pittsburgh, PA.........................	25,708,162	9,495,859	16,212,303	63%
Portland-Vancouver, OR-WA..............	16,653,099	4,399,929	12,253,170	74%
Riverside-San Bernardino, CA...........	7,708,242	2,514,794	5,193,448	67%
Sacramento, CA.........................	9,851,554	3,477,938	6,373,616	65%
San Antonio, TX........................	14,613,666	4,576,347	10,037,319	69%
San Diego, CA..........................	29,225,654	7,302,150	21,923,504	75%
San Francisco-Oakland, CA..............	91,452,351	19,442,832	72,009,519	79%
San Jose, CA...........................	21,807,960	6,605,772	15,202,188	70%
San Juan, PR...........................	10,589,419	7,507,965	3,081,454	29%
Seattle, WA............................	37,694,803	6,169,695	31,525,108	84%
St. Louis, MO-IL.......................	16,683,616	9,586,297	7,097,319	43%
Tampa-St. Petersburg-Clearwater, FL.....	11,770,161	5,219,393	6,550,768	56%
Washington, DC-MD-VA...................	71,215,603	16,878,258	54,337,345	76%
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SUBTOTAL...............................	$1,638,538,951	$517,179,848	$1,121,359,102	68%

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION:

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 OPERATING ASSISTANCE	FY 1994 CAPITAL ASSISTANCE	PERCENTAGE OF TOTAL APPORT. FOR CAPITAL
Akron, OH	$4,648,856	$2,303,157	2,345,699	50%
Albany-Schenectady-Troy, NY	5,749,382	2,233,810	3,515,572	61%
Albuquerque, NM	4,493,659	1,543,704	2,949,955	66%
Allentown-Bethlehem-Easton, PA-NJ	3,430,725	2,335,522	1,095,203	32%
Anchorage, AK	1,901,495	762,198	1,139,297	60%
Ann Arbor, MI	3,023,713	979,294	2,044,419	68%
Augusta, GA-SC	1,588,000	780,110	807,890	51%
Austin, TX	9,000,976	1,469,087	7,531,889	84%
Bakersfield, CA	2,901,356	957,895	1,943,461	67%
Baton Rouge, LA	2,266,549	1,280,038	986,511	44%
Birmingham, AL	4,615,879	2,351,335	2,264,544	49%
Bridgeport-Milford, CT	4,968,073	2,041,392	2,926,681	59%
Buffalo-Niagara Falls, NY	10,293,906	5,992,124	4,301,782	42%
Canton, OH	1,544,095	1,127,878	416,217	27%
Charleston, SC	2,372,078	1,069,343	1,302,735	55%
Charlotte, NC	4,575,705	1,289,113	3,286,592	72%
Chattanooga, TN-GA	2,014,246	971,813	1,042,433	52%
Colorado Springs, CO	2,956,631	964,728	1,991,903	67%
Columbia, SC	2,277,530	1,091,686	1,185,844	52%
Columbus, GA-AL	1,485,033	817,965	667,068	45%
Columbus, OH	9,161,336	4,345,970	4,815,366	53%
Corpus Christi, TX	2,664,562	858,410	1,806,152	68%
Davenport-Rock Island-Moline, IA-IL	2,384,435	1,116,925	1,267,510	53%
Dayton, OH	9,636,632	2,891,902	6,744,730	70%
Daytona Beach, FL	1,715,052	775,611	939,441	55%
Des Moines, IA	2,214,437	1,087,824	1,126,613	51%
Durham, NC	2,032,878	799,443	1,233,435	61%
El Paso, TX-NM	6,660,262	1,779,238	4,881,024	73%
Fayetteville, NC	1,201,637	735,697	465,940	39%
Flint, MI	2,808,906	1,513,208	1,295,698	46%
Fort Myers-Cape Coral, FL	1,630,298	564,991	1,065,307	65%
Fort Wayne, IN	1,719,617	1,078,995	640,622	37%
Fresno, CA	4,173,753	1,452,044	2,721,709	65%
Grand Rapids, MI	3,313,688	1,534,752	1,778,936	54%
Greenville, SC	1,600,681	741,822	858,859	54%
Harrisburg, PA	1,940,695	1,120,344	820,351	42%
Hartford-Middletown, CT	7,403,742	2,273,560	5,130,182	69%
Honolulu, HI	16,520,800	2,815,753	13,705,047	83%
Indianapolis, IN	6,702,540	3,783,331	2,919,209	44%
Jackson, MS	1,562,870	894,369	668,501	43%
Jacksonville, FL	6,225,444	2,004,575	4,220,869	68%
Knoxville, TN	1,980,258	891,576	1,088,682	55%
Lansing-East Lansing, MI	2,612,867	1,150,915	1,461,952	56%
Las Vegas, NV	5,325,834	1,366,210	3,959,624	74%
Lawrence-Haverhill, MA-NH	2,858,674	845,737	2,012,937	70%
Lexington-Fayette, KY	1,825,708	1,282,934	542,774	30%

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION:

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 OPERATING ASSISTANCE	FY 1994 CAPITAL ASSISTANCE	PERCENTAGE OF TOTAL APPORT. FOR CAPITAL
Little Rock-North Little Rock, AR.......	$2,071,075	$1,025,851	1,045,224	50%
Lorain-Elyria, OH......................	1,160,675	773,854	386,821	33%
Louisville, KY-IN......................	8,430,737	3,863,941	4,566,796	54%
Madison, WI............................	3,986,739	987,033	2,999,706	75%
McAllen-Edinburg-Mission, TX...........	1,082,405	820,018	262,387	24%
Melbourne-Palm Bay, FL.................	2,049,943	697,186	1,352,757	66%
Memphis, TN-AR-MS......................	7,531,966	3,581,058	3,950,908	52%
Mobile, AL.............................	2,030,495	997,912	1,032,583	51%
Modesto, CA............................	2,377,871	982,143	1,395,728	59%
Montgomery, AL.........................	1,287,275	1,015,419	271,856	21%
Nashville, TN..........................	4,531,306	1,660,321	2,870,985	63%
New Haven-Meriden, CT..................	7,704,873	2,293,923	5,410,950	70%
Ogden, UT..............................	2,345,304	693,318	1,651,986	70%
Oklahoma City, OK......................	4,237,841	2,297,963	1,939,878	46%
Omaha, NE-IA...........................	4,801,246	2,356,716	2,444,530	51%
Orlando, FL............................	8,025,987	1,734,124	6,291,863	78%
Oxnard-Ventura, CA.....................	3,215,027	1,344,880	1,870,147	58%
Pensacola, FL..........................	1,826,904	751,583	1,075,321	59%
Peoria, IL.............................	1,866,083	1,047,187	818,896	44%
Providence-Pawtucket, RI-MA............	13,034,375	4,707,579	8,326,796	64%
Provo-Orem, UT.........................	2,106,428	807,075	1,299,353	62%
Raleigh, NC............................	2,185,369	724,226	1,461,143	67%
Reno, NV...............................	3,087,638	834,898	2,252,740	73%
Richmond, VA...........................	5,312,022	1,918,263	3,393,759	64%
Rochester, NY..........................	6,258,806	3,075,023	3,183,783	51%
Rockford, IL...........................	1,540,483	963,662	576,821	37%
Salt Lake City, UT.....................	10,571,199	2,432,107	8,139,092	77%
Sarasota-Bradenton, FL.................	2,898,361	1,255,479	1,642,882	57%
Scranton-Wilkes-Barre, PA..............	2,877,754	1,725,361	1,152,393	40%
Shreveport, LA.........................	2,096,930	1,045,659	1,051,271	50%
South Bend-Mishawaka, IN-MI............	1,916,913	1,142,287	774,626	40%
Spokane, WA............................	4,549,106	1,108,427	3,440,679	76%
Springfield, MA-CT.....................	4,933,783	2,013,818	2,919,965	59%
Stockton, CA...........................	2,641,498	1,329,727	1,311,771	50%
Syracuse, NY...........................	4,433,613	1,887,973	2,545,640	57%
Tacoma, WA.............................	7,123,650	1,543,217	5,580,433	78%
Toledo, OH-MI..........................	4,847,915	2,229,595	2,618,320	54%
Trenton, NJ-PA.........................	3,870,563	1,968,561	1,902,002	49%
Tucson, AZ.............................	6,545,822	1,649,356	4,896,466	75%
Tulsa, OK..............................	3,606,816	1,561,635	2,045,181	57%
West Palm Bch-Boca Raton-Delray Bch, FL.	10,232,371	1,643,643	8,588,728	84%
Wichita, KS............................	2,543,067	1,350,998	1,192,069	47%

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION:

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 OPERATING ASSISTANCE	FY 1994 CAPITAL ASSISTANCE	PERCENTAGE OF TOTAL APPORT. FOR CAPITAL
Wilmington, DE-NJ-MD-PA................	$4,577,511	$1,998,116	2,579,395	56%
Worcester, MA-CT......................	2,806,263	1,153,354	1,652,909	59%
Youngstown-Warren, OH..................	1,995,069	1,776,796	218,273	11%
SUBTOTAL............................	$373,142,570	$144,839,592	228,302,978	61%

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

ALABAMA................................	$4,023,845	$2,967,919	1,055,926	26%
ALASKA.................................	0	0	0	0%
ARIZONA................................	638,913	311,717	327,196	51%
ARKANSAS...............................	1,537,398	1,202,906	334,492	22%
CALIFORNIA.............................	23,549,604	10,243,566	13,306,038	57%
COLORADO...............................	4,339,243	2,770,119	1,569,124	36%
CONNECTICUT............................	14,761,548	7,106,829	7,654,719	52%
DELAWARE...............................	327,362	143,707	183,655	56%
FLORIDA................................	9,977,296	4,748,787	5,228,509	52%
GEORGIA................................	4,368,310	3,267,936	1,100,374	25%
HAWAII.................................	1,160,989	716,695	444,294	38%
IDAHO..................................	2,297,799	1,219,601	1,078,198	47%
ILLINOIS...............................	10,525,078	8,090,041	2,435,037	23%
INDIANA................................	6,138,682	4,614,391	1,524,291	25%
IOWA...................................	3,341,820	2,677,620	664,200	20%
KANSAS.................................	1,622,561	1,144,613	477,948	29%
KENTUCKY...............................	1,278,842	957,245	321,597	25%
LOUISIANA..............................	3,787,399	2,814,839	972,560	26%
MAINE..................................	1,648,342	1,217,651	430,691	26%
MARYLAND...............................	1,833,041	1,131,877	701,164	38%
MASSACHUSETTS..........................	7,259,700	6,041,053	1,218,647	17%
MICHIGAN...............................	6,195,129	4,945,772	1,249,357	20%
MINNESOTA..............................	2,207,762	1,643,083	564,679	26%
MISSISSIPPI............................	1,895,402	1,365,577	529,825	28%
MISSOURI...............................	2,611,897	1,815,246	796,651	31%
MONTANA................................	1,738,747	1,304,039	434,708	25%
NEBRASKA...............................	1,932,956	1,180,215	752,741	39%
NEVADA.................................	0	0	0	0%
NEW HAMPSHIRE..........................	$2,347,297	$1,402,039	945,258	40%
NEW JERSEY.............................	1,778,508	1,750,351	28,157	2%
NEW MEXICO.............................	968,494	521,679	446,815	46%
NEW YORK...............................	5,373,525	4,348,794	1,024,731	19%
NORTH CAROLINA.........................	8,723,388	5,734,415	2,988,973	34%

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

STATE	FY 1994 SECTION 9 APPORTIONMENTS	FY 1994 OPERATING ASSISTANCE	FY 1994 CAPITAL ASSISTANCE	PERCENTAGE OF TOTAL APPORT. FOR CAPITAL
NORTH DAKOTA	1,694,947	1,046,671	648,276	38%
OHIO	4,660,308	3,697,486	962,822	21%
OKLAHOMA	725,352	581,992	143,360	20%
OREGON	3,782,702	2,146,396	1,636,306	43%
PENNSYLVANIA	9,888,648	7,726,018	2,162,630	22%
PUERTO RICO	9,135,045	4,988,497	4,146,548	45%
RHODE ISLAND	581,470	370,941	210,529	36%
SOUTH CAROLINA	2,462,447	1,525,934	936,513	38%
SOUTH DAKOTA	1,222,680	788,226	434,454	36%
TENNESSEE	1,892,309	1,337,239	555,070	29%
TEXAS	17,521,105	11,577,714	5,943,391	34%
UTAH	350,192	153,735	196,457	56%
VERMONT	614,483	368,076	246,407	40%
VIRGINIA	$4,078,906	$3,028,012	1,050,894	26%
WASHINGTON	3,854,641	2,171,710	1,682,931	44%
WEST VIRGINIA	2,962,488	2,728,212	234,276	8%
WISCONSIN	8,109,936	5,926,753	2,183,183	27%
WYOMING	849,030	694,625	154,405	18%
SUBTOTAL	$214,577,566	$140,258,560	$74,319,006	35%

OVER 1,000,000 IN POPULATION	$1,638,538,951	$517,179,848	1,121,359,103	68%
200,000-1,000,000 IN POPULATION	373,142,570	144,839,592	228,302,978	61%
50,000-200,000 IN POPULATION	214,577,566	140,258,560	74,319,006	35%
TOTALS	$2,226,259,087	$802,278,000	$1,423,981,087	64%
SECTION 23 SET-ASIDE	11,132,764			
NATIONAL TOTALS	$2,237,391,851	$802,278,000	$1,423,981,087	64%

Mr. CARR. When funds have been shifted from the formula to the discretionary capital program, what effect has this had on overall transit operations?

[The information follows:]

In general, the shift of funds from formula to discretionary capital programs has meant that a greater proportion of the overall program's capital resources are concentrated in a smaller universe of cities. Further, reduction in formula resources almost always means a reduction in formula capital resources, because areas tend to maintain spending of their formula operating caps. The reduction of formula capital means that many areas do not have a sufficient predictable, dependable source of capital with which to undertake routine capital improvements or to meet the capital requirements of the Americans with Disabilities Act or the Clean Air Act.

A few large areas with major new construction receive more funding when formula funds are used to increase the new starts program, at the expense of areas with primarily bus systems. The increased discretionary bus program can lessen to some degree the impact of formula capital reductions on bus systems, although discretionary bus funding is not distributed among the wide universe of areas that would receive the formula capital funds. More areas must then turn to the discretionary bus program for routine capital bus replacements, as evidenced by the enormous demand for discretionary bus funds over the last few years.

Mr. CARR. What effect, if any, does FTA predict that increased levels of capital assistance will have on reversing the transit industry's declining share of U.S. passenger miles travelled?

[The information follows:]

There is no question that old unreliable vehicles and facilities are less attractive than newer ones. As average age of bus and rail vehicle fleet has increased, so has its unreliability. As age of stations and terminals has increased, so have their unattractiveness. Clearly, transit is better able to compete with other modes of transportation when vehicles and facilities are newer and properly capitalized.

By spending now on capital investment, transit authorities can actually reduce their operating costs, thus reducing their need for operating assistance. For example:

a. Lower maintenance costs.—Pioneer Valley Transit Authority estimates that replacing 40 of its 115 buses would reduce its annual fleet maintenance costs by $400 thousand.

b. Improve fuel economy.—Testing of a 1994 diesel engine at the Pennsylvania Transportation Institute shows that fuel consumption of a 1994 engine delivers fuel economy of 4.7 mpg while older buses have fuel consumption of 4.1 mpg or lower.

c. Improve fleet performance.—A bus fleet with the standard average age of six years would only fail on average at about 9,000 miles compared to older fleets where buses fail as often as 3,000 miles.

d. Improved ridership.—More attractive rolling stock can attract more riders thereby increasing operating revenue.

Replacing aging fleets faster will also improve compliance with ADA and Clean Air Act requirements:

a. All new equipment now purchased must be accessible to persons with disabilities.

b. A 1994 diesel bus engine when compared to an early 1980's engine by the same manufacturer substantially cuts pollutants by 93 percent for particulates, 96 percent for hydrocarbons, 81 percent for carbon monoxide, and 58 percent for oxides of nitrogen.

IMPROVING TRANSIT INVESTMENTS THROUGH RESEARCH

Mr. CARR. The administration is proposing $26.2 million for the National Planning and Research Program. This national program is intended to focus funds on development and demonstration of new technologies to improve the effectiveness of capital investments, thus providing more efficient and useful transit service. In addition, projects are intended to maximize the opportunities of transferring existing military technology in areas such as advanced materials and communications to the transit industry to provide passenger “friendly” transit. What new technologies show promise of improving the effectiveness of capital investments?

[The information follows:]

All technologies that help to improve construction and operation of these investments show promise. For civil works, new technologies in geo-tech and tunneling, for example, can effectively locate underground obstacles and achieve great effectiveness with faster tunneling machines. New technologies in electrical-mechanical systems can improve rolling stock fabrication, making cars lighter and easier to maintain. New signaling systems will improve rail transit system throughput. All of these technologies contribute to making capital investment more effective than before.

Mr. CARR. To what extent can technological advances be expected to improve the effectiveness of capital investments?

[The information follows:]

It is difficult to predict a specific number or percentage improvement at this time. However, the BART Advanced Automatic Train Control project, for example, calls for the installation of a radio-based automatic control system over the existing wayside-based system. If it functions as predicted, this can increase the train traffic capacity of the Transbay Tube alone by 38 percent, and can probably increase the system-wide average by even more. New technologies hold the key of improvement in future capital investment. The BART project is a military technology conversion project.

MILITARY TECHNOLOGIES ADAPTABLE TO TRANSIT

Mr. CARR. What military technologies appear adaptable to the transit industry?

[The information follows:]

Military technologies that seem to offer advanced technology solutions to improve transit service are listed below along-with typical applications.

Command, Control, and Communications: Real-time location and status monitoring, and control of vehicles and facilities for improving service quality, safety, and quick response to emergencies; Real-time multimedia customer information.

Advanced Materials: For light weight, high strength, and more durable vehicles and their subsystems.

Virtual Prototyping and Simulation Based Design: For highly interactive design of new rolling stock to greatly reduce development time.

Interactive Electronic Training and Manuals: Readily available aid to operating and maintenance personnel for trouble shooting.

Some specific technologies that have been adopted from defense technology to transit applications from the CALSTART program under FTA's Electric Vehicle Program are outlined below:

COMPANY	TECHNOLOGY	FORMER USE	TRANSIT USE
Aerojet	Pressure Vessels	Missile Propulsion	NGV refueling
Aerojet	Sensitive Sensors	Missile Propulsion	Gas monitor
Allied Signal	Fuel Cells	Spacecraft power	EV power
Allied Signal	Turbo-generator	Tank systems	Hybrid EV's
Amerigon, Inc.	Programming/CD	Computer control	Vehicle navigation
Amerigon, Inc.	Peltier Junction	Infrared sensor	EV heating/ cooling
APS Systems	Heavy-duty chassis	Tank trailers	EV buses
Dowty Aerospace	Brakes	Aircraft brakes	EV regeneration
FMC Corp.	Power trains	Tanks/personnel carriers	Hybrid EV's
Group IX Systems	Advanced electronics	Aerospace controls	EV drive
Hub Engineering	Composite materials	Military aircraft	EV bodies
Hughes Aircraft	Magnetic induction	Underwater power transfer	EV charging
Hughes Aircraft	Power control electronics	F-14/F-15 radar	EV controller
Kaiser Aluminum	Extruded aluminum frame	Aircraft frame/lunar rover	EV chassis
Lawrence Livermore	Real-time computer analysis	SDI impact analysis	Vehicle analysis
U.S. Flywheel	Composite flywheel	Gyroscope/guidance syst.	EV battery

Mr. CARR. What military technologies would promote passenger "friendly" transit?

[The information follows:]

Military technologies that have potential for promoting passenger "friendly" transit, along with typical applications, include:

Customer Information Technology: Information technologies that facilitate dissemination in public places of accurate, timely (to-the-minute), and easy-to-use information on transit schedules, fares, connections and actual operations; the same information would also be readily accessible from home and office.

Safety and Security Systems Technology: Surveillance and communications technologies for real-time security monitoring and quick response to emergency situations.

IMPROVING RAIL RIDERSHIP FORECASTS

Mr. CARR. A 1990 report, Urban Rail Transit Projects: Forecast Versus Ridership and Cost recommended that the Federal Transit Administration take a number of actions to improve transit operators' ability to estimate ridership and costs for transit projects. The reasonableness of these estimates have important implications for the reliability of the process local decision-makers use to develop and choose among alternative transit projects.

How has FTA addressed the recommendations contained in this report?

[The information follows:]

The report's recommendations included the application of reasonableness checks to forecast results so they can be evaluated in light of current experience, the conduct of expert reviews of planning assumptions and results, a more explicit acknowledgment of the uncertainties inherent in forecasts, and higher capital cost contingencies during planning. FTA has revised its guidance manual on transit project planning to include these recommendations. FTA has also been emphasizing the recommended actions in its oversight of major transit investment studies. For example, virtually every major transit investment study now includes an expert ridership forecasting review panel, consisting of individuals without a vested interest in the outcome of the study.

Mr. CARR. Have forecasted ridership and costs improved since the 1990 report? On what do you base your opinion? Provide specific examples.

[The information follows:]

None of the transit projects subjected to a major transit investment study since 1990 is as yet operational. Therefore, the actual ridership and costs of these projects are not yet available for comparison with the forecasts developed in accordance with the report's recommendations. Nevertheless, FTA believes that progress is being made not only through the implementation of the report's recommendations, but also through the implementation of ISTEA planning and programming requirements. The modal flexibility of certain title 23 (highway) funding programs has increased the scrutiny by other transportation agencies, of the major transit projects that may draw from those flexible funding sources. The new metropolitan planning regulations have opened the entire forecasting process to review by interest groups and the general public and forced new discipline on the planning process especially in air quality nonattainment areas. For example, the Environmental Defense Fund has recently critiqued the models used by the Chicago Area Transportation Study (CATS), the metropolitan planning organization for Chicago, and CATS will be adjusting its models in response. FTA expects continued gradual improvement in forecasting techniques and their application.

Mr. CARR. Transit operators state that ridership and cost estimates become more realistic as the project gets closer to construction and operation. FTA has the authority to withdraw Federal participation throughout this process. Has FTA ever withdrawn Federal participation? Have ridership and cost estimates ever changed for a specific project that demonstrated that it might not be cost effective?

[The information follows:]

A change in the ridership forecast has never resulted in FTA withdrawal of federal participation in funding construction. FTA has required a review of proposed operating plans, including financial elements, late in project development as a result of changing ridership forecasts and the associated changes in far revenue forecasts. In certain cases, FTA has refused to participate in capital costs which exceed those to which the parties have agreed in the full funding grant agreement (FFGA). The ridership and cost estimates, and corresponding cost-effectiveness, which are the basis of FTA funding recommendations in the Section 3(j) Report, are produced late in project development after substantial preliminary engineering. These late forecasts have proved to be more accurate than those developed in the planning process, and changes of a magnitude that would affect a funding recommendation have not occurred.

TRAVEL MODEL IMPROVEMENT PROGRAM

Mr. CARR. In October 1993, the General Accounting Office reported that some of the analytical tools states and localities use to make transportation investment decisions are not adequate. In particular, there are no common measures for comparing different transportation alternatives and travel demand models do not provide the information necessary for analyzing the impact of transportation projects on air quality. In fiscal year 1992, the Department of Transportation, in cooperation with the Environmental Protection Agency and the Department of Energy, established the travel model improvement program. This program is designed to develop the next generation of travel demand models and to address some of the deficiencies in travel demand forecasting.

What actions has the Federal Transit Administration taken to develop common measures for comparisons of transportation alternatives?

[The information follows:]

Through research at the national level on approaches and methodologies, we are developing analytic criteria which can be offered to cities, states and MPOs for their use. Our major efforts in this area are:

(1) We are developing the technical methodology for transit operators, states and MPOs to use in undertaking evaluations between different modal alternatives.

(2) Outreach to the transit community, MPOs, and states to disseminate computer-based methodologies for cross-modal comparisons and comparing alternative multi-modal investment packages in corridors.

(3) FTA is working with FHWA to develop and provide courses through the National Highway Institute and the National Transit Institute to provide training in estimating the impacts of multi-modal alternatives and processes and procedures for multi-modal planning.

(4) We are participating in an interagency task force to review and develop techniques for multi-modal evaluation and are working to prepare a report to provide examples of multi-modal and cross-modal planning activity.

Mr. CARR. What is the status of the TMIP and development of the comprehensive program plan for this program?

[The information follows:]

A draft comprehensive work plan has been developed and it is currently under review within the Department of Transportation. FTA along with FHWA, EPA, and the Department of Energy are considering funding the elements of the Travel Model Improvement Program (TMIP) jointly. Methods to improve existing procedures are under development and initial products will be distributed during FY 1994.

One component of the TMIP is the Transportation Analysis and Simulation System (TRANSIMS), which will involve a complete redesign of travel forecasting procedures. To date, a demonstration of the TRANSIMS concept has been given by the

Los Alamos National Laboratory staff. The methodology has been reviewed by the DOT Research and Technology Steering Committee and has been circulated among user groups such as states and MPOs. In addition, DOT has begun distributing products of the completed Los Alamos work to MPOs and state DOT's for their use. The work effort is receiving support from FTA and the other DOT modal agencies and a group of academics and model users has recommended completing TRANSIMS model development, in part because of the need for improved transit ridership estimation techniques.

Mr. CARR. How is TMIP research being coordinated both within and outside DOT and what program changes have been made as a result of this coordination?

[The information follows:]

The TMIP process has three levels of coordination: (1) Within DOT, a working group has been formed with representatives from the FTA, FHWA and the Office of the Secretary to provide oversight and project management. (2) Between DOT and other federal agencies, FTA and FHWA staff have been working with the Department of Energy and the Environmental Protection Agency and: (3) Between DOT and a working group of travel demand model users including representatives from state government, metropolitan planning organizations, the environmental community, developers, and academics in the field.

Mr. CARR. How will FTA ensure results of the TMIP are useful for analyzing the impact of transportation projects on air quality and the selection of projects supporting air quality improvement?

[The information follows:]

FTA and FHWA have worked together and will continue to provide training and technical assistance to state governments and MPOs in the use of travel demand forecasting procedures and models. The results of the TMIP program will be incorporated into this training. The procedures which are under development will be field tested in local areas on a demonstration bases to insure that they are useful for analyzing the impact of transportation projects on air quality. In addition, contact has been established with the EPA office of mobile sources to coordinate the development of air quality estimation methods.

PROGRAMS TO IMPROVE EMPLOYMENT-RELATED TRANSIT SERVICES

Mr. CARR. Funds were earmarked in the Joblinks employment transportation initiative to develop innovative programs to improve employment-related transit services and overcome critical mobility barriers in both urban and rural areas. The Community Transportation Association of America won the competitive bid to complete the Congressional objectives, and funds are available through fiscal year 1994.

Has the FTA conducted an evaluation of the Joblinks program? What were the initiative's results, and what lessons were learned about employment-related transit services?

[The information follows:]

FTA worked with the Department of Health and Human Services (DHHS) Job Program in the development of this program. It was learned that there were billions of dollars available from DHHS and the Department of Labor for the various job training programs. However, the missing link was transportation. It is hoped that the Joblinks initiative will serve as a model for the rest of the nation. FTA has not conducted an evaluation of this initiative because the demonstrations are not yet underway. There are no results as of this date because the demonstrations are not underway. CTAA has developed an evaluation plan that will be used as we work through implementation of the projects.

Mr. CARR. What role do transit services play in low-income urban residents' ability to locate and hold jobs?

[The information follows:]

Transportation is the key linkage to those low-income citizens finding jobs and holding them. An analysis was conducted under the auspices of the DOT/DHHS coordinating council whereby transportation was found to be even more important than day care services.

Mr. CARR. Do you think there is sufficient support by state and local governments or private groups to continue the initiative without additional federal funding?

[The information follows:]

It is too early to tell. We are hoping that when the 13(c) certifications are completed and the demonstrations begun, we will have more data to analyze and bring such data to the states and localities for their evaluations. As we previously stated, we support this project for one more found of funding. After these demonstration projects are completed in fiscal year 1996, the states and localities should have enough data to continue this initiative with state and local funding.

IG REPORT ON MARTA RAIL CAR ACQUISITION

Mr. CARR. A report of the Inspector General entitled Audit of Useful Life of Rail Cars—Metropolitan Atlanta Rapid Transit Authority was issued May 19, 1993. The report concluded that MARTA spent $82 million uneconomically by acquiring 58 cars in excess of its needs. It also concluded that future costs of $107.7 million could be avoided if MARTA's federally assisted overhaul and replacement cycle was extended to achieve the actual usage envisioned for the equipment. The report contained the following recommendations: The FTA should deny further rail car acquisition assistance to MARTA until the MARTA spare ratio is reduced to a reasonable 20 percent; the FTA should also deny overhaul and replacement assistance until the service life of the cars reaches 17 and 35 years, respectively; the FTA should withdraw $8.6 million in overhaul funds already granted.

Apparently, the FTA disagrees that the cars were not purchased economically; is that correct? What is the basis for this position?

[The information follows:]

FTA disagrees with the Inspector General that the cars were not purchased economically. The Inspector General believes that the MARTA railcar spare ratio should be the same as the 20 percent used for buses. The railcar procurement, operation, and maintenance factors are completely different than for buses, and FTA does not impose a specific percentage spare ratio for railcars. For example, unlike a bus, a railcar failure could cause the entire train to go out of service.

Railcar procurements take 3 to 5 years. Because of the long procurement time, transit agencies have to base their railcar purchase on estimated needs as much as 7 to 10 years in the future. Expansion plans, ridership estimates, and planned operating policy changes affect the number of cars required.

Because railcars are custom built, engineering costs are extremely high and the more cars bought, the cheaper the unit cost. On the last procurement, MARTA increased the order by purchasing 54 cars entirely with local funds. The use of local funds significantly reduced per unit costs, saved significant federal funds by reducing unit car costs, and reduced need for future railcar procurements. In the case of the use of local funds, FTA is not concerned with the high spare ratio, but will critically review future MARTA applications for funds for railcar procurements.

Mr. CARR. What actions has the FTA taken in response to the findings contained in the Inspector General's report?

[The information follows:]

FTA will critically review MARTA requests for federal funds for railcars, in particular, the reasonableness of their railcar spare ratios.

Mr. CARR. Has the FTA withdrawn the $8.6 million in overhaul funds?

[The information follows:]

FTA disagrees with the Inspector General recommendation that overhaul funds should be withdrawn. The Inspector General recommendation is based on applying the 20 percent spare ratio (used for buses) to calculate the underusage of MARTA's railcars as justification for extending the overhaul period to 16 years. Vehicle life (and overhaul life) is not just dependent on actually service mileage but is also affected by environment, age and the type of service (peak vs non-peak). Railcar procurement, operation, and maintenance factors are completely different than for buses, and FTA does not impose a specific percentage requirement for railcar spare ratios. Transit agencies have established railcar spare ratios based on unique operating and technical variables that are specific to their system. Unlike a bus a railcar failure will cause the entire train to go out of service.

FTA requires at least 12 years of service requirement for overhauls. The MARTA railcars that are being overhauled have approximately 14 years of service and none have less than 12 years of service. The overhaul will incorporate new equipment that should increase reliability and reduce operating and maintenance costs.

Mr. CARR. What procedural changes has the FTA initiated to ensure that there are no similar circumstances around the country?

[The information follows:]

FTA will critically review spare ratios for transit agencies submitting applications for funds to procure railcars. It is the FTA position that the MARTA use of local funds to procure 54 railcars saved federal funds even though it increased the spare ratio. In the case of the use of local funds to procure railcars, FTA is not concerned with the high spare ratio, but will critically review applications for additional railcars. Because railcars are usually custom built, the engineering costs are extremely high and the more cars that are bought the less the per unit cost. Transit agencies often use local funds to procure additional railcars because of the large savings on a per unit basis.

IG REPORT ON RAIL CARS FOR METRO DADE TRANSIT AUTHORITY

Mr. CARR. In another audit report issued last year (No. R4–FT–3–770, August 27, 1993) the Inspector General's Office concluded that the Metro Dade Transit Authority had uneconomically spent between $25.9 and $31.8 million to acquire 34–42 rail cars excess to current needs. The IG also concluded that future federal expenditures of between $27 and $33 million could be avoided if Metro Dade rail car overhaul and replacement cycle was extended to achieve the actual usage envisioned for the equipment.

What is the FTA's response to the IG's findings? Have the FTA and IG resolved their differences concerning Metro Dade's daily peak requirement?

[The information follows:]

FTA agrees that Metro Dade purchased excess railcars based on high ridership numbers. Metro Dade made the decisions on railcar needs in the mid-1970s. At that time there were serious concerns on the availability of oil and high gas prices to force people to ride transit. Although the ridership projections were too high they were not unreasonable considering the conditions in the 1970s. There are still some concerns between FTA and the IG on the calculation of the daily peak requirement that need to be resolved.

Mr. CARR. The IG further concluded that the internal control weaknesses in Federal Transit Administration Region IV's approval and monitoring of rail car grants were material and should be reported to the Secretary for inclusion in the next Federal Manager's Financial Integrity Act report. What is the status of this reporting?

[The information follows:]

The FTA disagreed with reporting these issues as internal control weaknesses under the FMFIA because the excess cars relate to a 1979 overprojected ridership forecast not representative of recent FTA monitoring and the $10 million reporting threshold was not exceeded.

Mr. CARR. The Regional Federal Transit Administrator's comments to the IG's office indicates that the number of rail cars to be purchased was based on a ridership projection of more than 200,000 per day. The initial ridership of 23,000 in 1985 has increased to about 53,000 daily, but is still far from the initial projections. His comments indicate: "The result of this incorrect forecast is an excess of rail cars, unfortunately not a unique problem in the transit industry."

What is the FTA doing to address the issue of "promotional" ridership estimates? Why doesn't the FTA somehow factor in the promotional nature of early ridership estimates into the calculations for numbers of rail cars needed?

[The information follows:]

The ridership studies for the Miami Metrorail were completed in 1977, prior to the creation of FTA's new start evaluation criteria and the cost-effectiveness index referenced in the 3(j) report. In the 17 years since there forecasts were completed, the Federal Transit Administration has studied problems relating to ridership forecasting in the 1990 "Urban Rail Transit Projects: Forecast Versus Actual Ridership and Costs," done by the Volpe National Transportation Systems Center (also known as the "Pickrell" report). The FTA has taken steps to implement the recommendations of the 1990 Pickrell report. These include advocating better quality control at the local level during planning studies, sponsoring peer reviews of the forecasting methods used at the local level, developing technical methods manual, training, and other assistance for cities planning new start projects.

FTA and the transit industry have worked to resolve the issues highlighted by the Volpe National Transportation Systems Center work and we believe that the ridership forecasts currently produced during planning are not "promotional" forecasts, but are accurate enough to help local decision makers chose the most cost-effective transportation projects. Ridership forecasts are refined several times during the planning process starting with system planning, corridor analysis, preliminary engineering, and final design. These forecasts become more accurate as the station sites, corridor alignment, and operating details are worked out and these refinements are reported in the 3(j) report. The final equipment orders are made based upon the ridership forecasts completed in preliminary engineering and/or final design, the final stage of the planning process.

A recent example of the planning process at work is the St. Louis Light Rail system. The ridership forecast made during final design predicted 17,000 riders per day, while actual ridership has been over 20,000 riders per day.

Mr. CARR. The Inspector General's reports on Metro Dade issued last August and on Atlanta's MARTA last May call into question Region IV's management of the transit programs under its purview. Are you satisfied with the transit management team in Region IV, especially as it relates to grant oversight?

[The information follows:]

FTA is satisfied with its Region IV transit management team. Many of the problems cited by the IG are caused by decisions made over ten years ago. FTA management and monitoring of grants have improved compared to the resources and ridership forecasting methods used over ten years ago.

USE OF VALUE ENGINEERING

Mr. CARR. Earlier Inspector General reports have been somewhat critical of the Federal Transit Administration for not actively pursuing value engineering. Estimates of savings resulting from the use of value engineering average about 3 percent.

Does the FTA now have in place a program that requires value engineering to be used for all major capital projects funded under the section 3 discretionary grants program?

[The information follows:]

Yes. FTA's policy is to encourage the use of value engineering on all construction projects and requires its use on major capital projects.

Mr. CARR. Does the FTA maintain data on VE proposals and savings resulting therefrom? Provide the Committee both with summary data for the last three years and with individual examples of the most dramatic savings.

[The information follows:]

Yes. FTA maintains summary data on value engineering efforts conducted by the grantees. The summary data is reported annually to the Office of the Secretary. Over the last five years, the savings on grantee's major capital projects due to the use of VE is $255.87 million. A breakdown of the data is:

SAVINGS DUE TO VE OVER THE LAST 5 YEARS

Fiscal year	Savings as a percent of total project cost	Value of savings in millions
1993	2.6	$50.27
1992	1.9	32.07
1991	3.5	55.42
1990	4.7	54.11
1989	2.4	34.0
Total	3.02	255.87

Examples of VE savings within the last three years are:

Project	City	Project cost in millions	VE savings in millions	Year
Utah Transit Authority's Light Rail System.	Salt Lake City, UT	$182.25	$15.9	1993
63rd Street, Queens Blvd. Line Connection.	Queens, NY	291.00	14.7	1992
Metropolitan Atlanta Rapid Transit System.	Atlanta, GA	212.40	23.47	1991

IG REPORT ON PEAK VEHICLE REQUIREMENTS

Mr. CARR. A report issued by the Inspector General on January 22, 1991 concluded that DOT "subsidizes purchases of mass transit buses without reasonable assurance that these funds are used economically and efficiently." The report further found that: 728 of 2,877 new buses exceeded the spare bus allowance policy, 594 federally funded mass transit buses were being used to provide school bus service, 225 buses had been prematurely removed from revenue service without providing DOT the proper reimbursement.

What specific actions has the Federal Transit Administration taken in the last three years to improve section 9 program guidance and monitoring, as recommended by the IG report?

[The information follows:]

Most recently, the FTA has developed draft section 9 guidance that addresses many of the concerns raised by the OIG reports. The guidance will be finalized in draft, circulated for comment and published within the next fiscal year. Additionally, great strides have been made in improving monitoring of section 9 grantees through improvement in the triennial review program. A triennial review handbook has been developed that may be used by both regional staff and contractors. The handbook provides an in-depth analysis of the statutory and administrative requirements covered in the triennial review and detailed sampling and testing procedures in areas such as competitive procurement, satisfactory continuing control and maintenance. Many of the procedures were developed in collaboration with the OIG. Additionally, in order to get in front of the issue, FTA has implemented a program to provide grantees with detailed information on the requirements for section 9 grants prior to the triennial review. Three such programs have now been offered with good reviews by the grantees. A pilot program was offered to 10 select grantees in December followed by the presentation of the requirements to grantees during a one and one-half day session in Region I, Boston. Recently, FTA presented the program to more than 65 grantees during the APTA management conference in San Jose. Grantees reported that the program was useful and provided the necessary emphasis on areas where the most common problems recur. FTA has made a number of changes in the monitoring of grantees that we believe satisfy the OIG and GAO concerns. In fiscal year 1991, FTA staffing was increased by 14 full time employees (FTE) and in fiscal year 1992, the staffing was increased by 31 FTE to 460. FTA significantly increased its resources devoted specifically to oversight with the reassignment of 40 FTE staff regional staff positions. With the expanded authorities under section 23(h), FTA's management and oversight capabilities have been enhanced and the regional staff also augmented by the use of contractors with expertise in the areas of concern. The following is a breakdown of the additional FTE provided through the use of contractors under section 23 for management and oversight. Triennial review, about 10 FTE per year; financial management oversight, eight FTE per year; procurement system reviews, 14 FTE per year; and project management oversight, 47 FTE per year. The total FTE provided by section 23 contractors are 79 FTE per year. When adding the 79 FTE of contractor support and 40 FTE regional staff positions, the total resources dedicated to oversight functions total about 119 FTE. Another action taken to strengthen the FTA efforts was the institution of a grantee risk determination process to assess the relative risk of each grantee's potential noncompliance with statutory and administrative program requirements. Through this process, regional officials and staff must review each grantee annually and complete a risk assessment form to determine the relative risk rating. This information is used to develop a grantee oversight plan for the year.

Mr. CARR. Can the FTA indicate for the 51 grantees studied for the 1991 report, how many still are not in compliance with your guidelines?

[The information follows:]

One grantee of the 51 studied for the 1991 OIG audit report has not achieved a spare ratio of 20 percent or less. In the spring of 1994 San Francisco Municipal Railway (Muni) progress reports showed a 23 percent spare ratio. Muni is in the process of substituting trolley coaches for diesel buses. The authority is also having some difficulties with some small buses. Both of these circumstances can cause the spare ratio to increase.

The 20 percent bus spare ratio is not a requirement but a goal, and FTA does not consider grantees out of compliance. The introduction of new technology buses with alternative fuels and ADA accessibility equipment has significantly increased failure rates and maintenance problems associated with the new equipment. During this transition period of introducing new buses, the spare ratio increases because grantees are keeping their older buses as back-up while problems are being resolved. It is anticipated that in the near term spare ratios will be slightly higher because of the large increase of alternative fueled buses being procured.

PROFESSIONAL SERVICES PROCUREMENT UNDER TRANSIT GRANTS

Mr. CARR. The DOT Inspector General issued a report last year on the procurement of professional services under transit assistance grants. The report is numbered R5–FT–3–043 and dated July 21, 1993. The IG concluded that the Federal Transit Administration allowed grantees to acquire services, one, without executing formal contracts, two, without implementing procurement procedures complying with federal guidelines, three, using personnel who were not procurement specialists, and four, without applying federal requirements. In addition, the IG noted instances of fraudulent billings and apparent conflicts of interest.

Do you agree with the Inspector General's contention that you do not have adequate assurance that certain grantees acquired professional services worth at least $25 million in the most cost effective manner?

[The information follows:]

FTA relies heavily upon grantee self-certifications that their procurement procedures are in compliance with federal standards. We agree that this has been a problem area but we believe that most state and local policies, and laws allow legal and other professional services to be procured on the basis of the ability to perform rather than a purely cost basis. It is primarily a matter of process rather than a grantee intentionally violating federal laws that require cost competition. However, we believe that our specific initiatives to address the Inspector General's and our concerns will eliminate many problems.

Mr. CARR. What action has the Federal Transit Administration taken to address the recommendations contained in the IG's report?

[The information follows:]

Grantees are being reminded of procurement requirements and the importance of contractor oversight through the issuance of information bulletins and by providing grantees with an orientation to third party contracting and training in contract administration, negotiations and cost and price analysis. Further, we undertake grantee procurement system reviews to identify deficiencies and advise them on corrective action. During triennial reviews we are reviewing contractor performance billings as well as reiterating abiding by federal procurement requirements that may be different from state and local requirements.

Mr. CARR. Has the FTA withheld any funds from grantees pending review and compliance with FTA Circular 4220.IB?

[The information follows:]

FTA has not used its authority to withhold funds from grantees pending review and compliance with FTA Circular 4220.1B. FTA's policy is to work with grantees by providing the necessary technical assistance for the grantee to gain compliance, and only withhold funds as a last resort.

Mr. CARR. How much of the $8 million representing the federal share of non-compliant contracts and professional services costs has the FTA recovered?

[The information follows:]

None at this time. However, we are in the process of completing a review of grantee responses to the OIG audit finding and recommendations and we anticipate recovering all due monies by July 30, 1994.

Mr. CARR. What is the total amount of the Federal share of noncompliant costs you hope to recover?

[The information follows:]

Our preliminary analysis of information provided by grantees indicates that we should expect to recover approximately $5.2 million.

IG REPORT ON SEC. 9 GRANTS TO THE HOUSTON TRANSIT AUTHORITY

Mr. CARR. The Department of Transportation's Inspector General issued an audit report last year on the section 9 capital grants to the Houston Metropolitan Transit Authority. The report is numbered R6–FT–3–083 and is dated August 19, 1993.

The Inspector General concluded that the Federal Transit Administration's Region 6 office did not ensure grant funds were administered in an economical manner or in accordance with the FTA regulations. Specifically, the IG found that: (1) Houston Metro owed $843,048 plus interest for excess grant funds, (2) FTA funded buses were not properly maintained by a contractor, (3) Houston Metro held $2.4 million of unneeded section 9 funds, and (4) FTA had no assurance that section 9 funded capital assets were actually on hand. The IG made specific recommendations regarding each of these findings.

Indicate the actions taken or planned in response to each recommendation of the IG. Also indicate how much funding has been refunded and deobligated, and what the total amounts to be refunded or deobligated will be.

[The information follows:]

The OIG recommended: (1) require Houston METRO to refund $843,048 of excess grant funds and pay accrued interest; the excessive funds drawn on the project of $843,048 plus $106,780 for a total of $929,484 were transferred by METRO to FTA on August 27, 1993. (2) require Houston METRO to inspect, investigate and report the safety condition of all contractor-operated vehicles; Houston METRO developed and implemented plans to inspect, investigate and report safety condition of all contractor-operated vehicles and submitted the plan to FTA for correcting or eliminating the safety defects. (3) the regional administrator deobligate the $2.4 million of section 9 grant funds unless Houston METRO can demonstrate appropriate need for the funds; On February 14, 1993, FTA agreed in principle to the use of the $2.4 million to expand a park and ride lot which is within the scope of the original project. Pending final approval, the $2.4 million in section 9 funds in question will be used for land acquisition, engineering, and construction of the park and ride lot expansion project. (4) require Houston METRO to immediately make a physical inventory of assets purchased with federal funds and reconcile the results to accounting records; Houston METRO is testing a new management information system which will assist in the inventory and reconciliation process. In August 26, 1993, the inventory was taken and the results reconciled with property records.

Mr. CARR. The results of the audit report are somewhat troubling since the Federal Transit Administration is negotiating a full funding grant agreement with Houston Metro. Are you confident the leadership and procedures of Houston Metro are up to the task of managing a several hundred million dollar busway project?

[The information follows:]

The FTA is in the process of negotiating a full funding agreement with Houston METRO for a Regional Bus plan which consists of numerous individual projects in various stages of development. FTA is asking for an analysis of a group of experts to provide assurance the Houston METRO has adequate resources to manage such a project. Financial management oversight contractors will be assigned to determine that the grantee's financial management system is in compliance with each of the seven standards of the Common Rule. Additionally, the contractors will be asked to determine if the grantee's fixed assets tracking system meets the federal requirements and whether the financial system can, during the construction phase, be used to provide timely projections of the financial impact of project change orders.

SECTION 3(j) REPORT

Mr. CARR. Page 31 of the section 3(j) report indicates that $2.8 billion is available in ISTEA funding for fiscal years 1995 through 1997. Using that as a base, the analysis goes on to prove that there is sufficient funding available to accommodate the projects the FTA intends to fund during the life of ISTEA. However, that analysis assumes that the $400 million in 1995 discretionary grant funding not requested in 1995 will be available later, does it not?

[The information follows:]

The analysis does assume that the $400 million (actually $420 million) not requested in fiscal year 1995 may be available in subsequent years. The section 3(j) report recommends funding for the five projects that have full funding grant agreements already in place. Total funding for these projects over the remaining life of ISTEA (fiscal year 1995 through fiscal year 1997) is slightly less than $1.1 billion, far below the remaining balance of the authorization whether the unrequested authority is included or not.

Section 3(a)(4)(E) of the FT Act limits the total amount of letters of intent, full funding grant agreements and contingent commitments which are issued at any one time to the remaining balance of ISTEA, or one-half of the uncommitted cash balance in the Mass Transit Account of the Highway Trust Fund, whichever is greater. This is a legal test that must be met regardless of whether the full authorized amount is requested for any given fiscal year.

Mr. CARR. Even if the authority carries forward, the realities of the Congressional budget process make such an occurrence extremely unlikely, don't you agree?

[The information follows:]

Yes. FTA agrees that it would be unlikely that authorized funds not requested for a given fiscal year would be provided in later fiscal years, and has made no assumptions to that effect.

Mr. CARR. What is the effect on FTA's analysis if the $400 million is deleted from available outyear funding? Is there then sufficient money available to fund the projects FTA intends to support?

[The information follows:]

The section 3(j) report recommends funding for the following five projects, which have full funding grant agreements already in place. The total amount of funding required to complete these projects over the remaining life of ISTEA is approximately $1.1 billion. As the following chart shows, there is sufficient funding to complete all of these projects regardless of whether the $420 million balance of the fiscal year 1995 authorization is included in the calculation or not:

	FY 1995 Funds	Maximum Outyear Funds FY 1996-97	Total Funding FY 1995-97	Available ISTEA Funding	Available ISTEA Funding (less $420M)
ISTEA Funding Availability (FY 1995-1997)				$2,800.00	$2,380.00
Less:					
Existing Full Funding Grant Agreements					
Dallas/South Oak Cliff	$ 33.77	$ 00.00	$ 33.77		
Los Angeles/MOS-3	184.30	317.60	501.90		
New York/Queens	62.54	152.16	214.70		
Portland/Westside LRT	111.70	229.20	340.90		
St. Louis/Metrolink	4.69	0.00	4.69		
Subtotal	$397.00	$698.96	$1,095.96	-$1,095.96	-$1,095.96
REMAINING ISTEA COMMITMENT CAPACITY (FY 1995-1997)				$1,704.04	$1,284.04
Anticipated Additional Contingent Commitment Authority for New Starts from 50% Uncommitted Cash Balance of Mass Transit Account (FY 1997)				+$1,453.90	+$1,453.90
Less:					
Contingent Commitments (FY 1998-2000)					
L.A./MOS-3			$535.00	-535.00	-535.00
TOTAL REMAINING COMMITMENT CAPACITY (FY 1995-2000)				$2,622.94	$2,202.94

COST-EFFECTIVENESS INDICES

Mr. CARR. Cost effectiveness indices are one of the tools used by the Federal Transit Administration to gauge the cost benefit effectiveness of section 3 projects. Projects listed in the April 1994 section 3(j) report have cost-effectiveness indices ranging from $4 to $75. The indices, however, can be a little misleading. In many, if not most cases, the indices have been computed using ridership estimates at points far into the future (10–15 years is not unusual) while using 1994, 1990, or even 1986 dollars.

Why has the FTA decided to portray the cost effectiveness information in this manner?

[The information follows:]

FTA has made every effort to update the costs and ridership benefits of each project to reflect updated capital cost estimates shown the most recent dollars to show ridership for the same year. The FTA indices do compare current costs with future benefits without discounting the benefits to the same year as the costs because the purpose of the analysis is to develop data which would show the relative costs and effectiveness of the projects, not to develop a single black-box benefit-cost ratio. Since nearly all of the proposed projects are shown in 1993 dollars and year 2010 ridership, the cost-effectiveness indices of each project are comparable and the relative merits of each project are reflected in the indices.

Mr. CARR. Doesn't the FTA's methodology tend to skew the figures presented?

[The information follows:]

No, since most of the costs are in recent year constant dollars and most of the benefits come from year 2010 ridership forecasts, most of the cost-effectiveness indices are comparable and not skewed. In those few cases where older cost dollars or earlier forecasts were used, the indices would not be skewed because the input data has not changed significantly since the inflation rates of costs have been low recently and because most population and CBD employment growth rates in urbanized areas are also low.

Mr. CARR. Wouldn't indices computed using dollars in the year of project completion or using then-year dollars provide a more accurate picture?

[The information follows:]

This would depend upon the purpose of the analysis. If the purpose is simply to compare among fixed guideway projects on the basis of a variety of cost-effectiveness indicators, the answer is no. However, if the purpose is to calculate an index which approximates benefit-cost ratio, then valuing costs and benefits in same year discounted dollars would be appropriate.

Mr. CARR. Provide recomputed cost effectiveness numbers for projects contained in the section 3(j) report using then-year dollars. Indicate the annual inflation factor employed.

[The information follows:]

The computation of cost-effectiveness numbers which account for the time-value of the stream of benefits and costs would require knowledge not only of the construction cash flow but also ridership forecasts for each year after opening through the forecast year and beyond. FTA currently does not have these data. However, we are examining several alternative methods of calculating cost-effectiveness which would reflect discounting of out-year benefits compared to near-year costs. In the future FTA will utilize evaluation methods which will discount future costs and benefits and these calculations will be reflected in 3(j) reports.

JACKSONVILLE AUTOMATED SKYWAY EXPRESS PROJECT

Mr. CARR. According to the section 3(j) report, the FTA is currently negotiating a full funding grant agreement with the Jacksonville Transportation Authority to try to complete an operable segment within existing federal funds. What is the status of the negotiations? When do you hope to reach agreement? What is the framework for the agreement? Is the FTA committed either to completing an agreement without additional federal funds or not to have any agreement at all?

[The information follows:]

The FTA is negotiating an amendment to the original full funding grant agreement for the north extension of the Automated Skyway Express. The negotiations should be completed and the agreement signed May 1994. The agreement will stipulate that the north extension and a portion of the south extension will be completed using the $15 million in federal funds appropriated for the south extension. This agreement will complete the project and not require any additional federal funds over what has already been appropriated.

LETTERS OF INTENT

Mr. CARR. Page 2 of the report states: "LOIs should be awarded to the best projects, in terms of cost-effectiveness, financial commitment and other justification criteria, in an order which is based on the degree to which each project meets these criteria."

Why then has the FTA proposed a letter of intent for the Tasman project, which has one of the highest cost-effectiveness indices, at $33, is rated medium for mobility improvements, and rated low for operating efficiencies, capital financing commitment, and stability and reliability of operating assistance?

[The information follows:]

On March 14, 1994, FTA notified Congress that it intended to issue a letter of intent (LOI) for the Tasman light rail project on April 15, 1994, unless there were Congressional objections. FTA intends to issue the LOI in order to comply with section 3032(c) of ISTEA, which specifically states that "* * * the Secretary shall approve the construction of * * * the Tasman corridor project, * * * not later than 90 days after the date of completion by SCCTD of preliminary engineering * * * [and] * * * upon approving construction * * * the Secretary shall execute a multiyear grant agreement * * *"

FTA and SCCTD began full funding grant agreement (FFGA) negotiations for this project in July 1993. However, final execution of the FFGA must await a decision by the California Supreme Court regarding the constitutionality of the recently voted half-cent sales tax intended to provide the non-federal share of the project. This is the basis for the "low" ratings given for capital financing commitment and stability and reliability of operating assistance. A court decision is not expected before March, 1995. Because of the legal difficulties surrounding the non-federal financing for this project, FTA opted to issue a LOI as a way of satisfying the ISTEA mandate.

MOBILITY IMPROVEMENTS

Mr. CARR. According to the footnotes accompanying table 2, ratings for mobility improvements are determined to be high if a project would save 10,000 or more hours of travel time per day, medium if the project would save 0 to 10,000 hours, and low if the project would increase travel time, all when compared to the TSM alternative. Thus a project that would save one hour and a project that would save 9,999 hours would be given the save mobility rating. Can't the FTA devise a better method of determining mobility ratings?

[The information follows:]

Summarizing data by establishing different categories reflecting ranges of data can create inequities inherent to the process. This is why we have also included the actual numerical values for each project's time savings in the profiles. With these data available each reader can make his/her own interpretation of the mobility improvements of each project without relying on summary data.

FTA is always looking for improvements to our evaluation process and we are currently examining other methods for the evaluation of fixed guideway projects, including methods for estimating mobility improvements. If a superior method is identified FTA will use it in future 3(j) reports.

PREPARATION OF SECTION 3(j) REPORT

Mr. CARR. What effect, if any, did the new planning regulations issued last fall and the new investment Executive Order issued this January have on the preparation of the section 3(j) report this year? When will these documents be fully operational for the projects contained in the 3(j) report? What is the status and timing of the policy statement on which the FTA is working?

[The information follows:]

The information contained in this year's 3(j) report was developed before the Executive Order and the new planning regulations. Accordingly the report does not reflect either.

The new planning regulations are operational at this time and apply to all projects which do not yet have a Record of Decision. FTA hopes to implement the Executive Order for the fiscal year 1996 budget cycle. FTA is currently working on a new major investment policy statement which will be consistent with both. In the near future FTA will issue a discussion paper on the new policy which will be followed by a series of outreach meetings. The final policy should be issued in the fall of 1994.

UNOBLIGATED NEW START FUNDING

Mr. CARR. Table I reveals that $447.86 million in fiscal year 1992 and 1993 funding remains unobligated. For each project that has unobligated funding from those years, indicate the reason for any delays and the anticipated date all 1992 and 1993 funding will be obligated.

[The information follows:]

The 3(j) report identifies 24 projects with unobligated fiscal year 1992 and/or fiscal year 1993 funds, as discussed below:

Los Angeles (MOS-2)—$49.63 million balance was incorrectly listed in the 3(j) report. These funds were actually obligated August 18, 1993. The project is under construction. FTA expects that these funds will be obligated this fiscal year.

Atlanta (MARTA North Line)—$11.05 million. MARTA intends to use the unobligated funds to design and acquire right-of-way for the 2-mile segment between Dunwoody and North Springs. FTA expects to be in a position to obligate these funds by the end of fiscal year 1994.

Jacksonville (South)—$15.05 million. FTA and the Jacksonville Transportation Authority (JTA) are negotiating an amendment to the full funding grant agreement (FFGA) for the north extension of the Automated Skyway Express. Under the amended FFGA, JTA would complete the north segment and a portion of the south segment using the $15 million in unobligated funds. It is expected that the revised agreement will be signed in May 1994.

San Francisco (Airport and Tasman)—$18.20 million. The unobligated funds are intended for the Tasman LRT project, which is currently in final design but proceeding slowly pending a California Supreme Court decision on a local funding source. The court's decision is not expected before 1995. If the funding source is upheld by the court, a full funding grant agreement would be prepared and the funds obligated.

Baltimore (LRT Extensions)—$27.38 million. Preliminary engineering has been completed. The 1992 appropriation of $2.56 million was obligated on March 29, leaving only the 1993 appropriation of $24.81 million still unobligated. A full funding grant agreement will be negotiated after the bids on designing and building the extensions have been received in May or June, 1994.

Chicago (Central Circulator)—$40.28 million. The City of Chicago has applied for $8 million to complete the preliminary engineering phase. The remaining funds will be requested for final design once the federal environmental process is completed.

FTA may be in a position to consider a grant application for final design before the end of fiscal year 1994.

Houston (Regional Bus Program)—$.18 million. The unobligated funds are included in a pending grant application.

Maine (Portland to Boston Commuter Rail)—$24.31 million. The environmental process and preliminary engineering are now complete, but 13(c) issues remain to be resolved. It is possible that these issues could be settled this summer, at which time FTA would be in a position to begin obligating the funds.

New Jersey (Urban Core)—$146.64 million. On February 23, FTA obligated $132.18 million for the Secaucus Transfer portion of the Urban Core Project. Of the remaining $14.4 million, we expect that New Jersey Transit will request about $5 million for preliminary engineering on the Newark-Elizabeth rail link and approximately $8 million for engineering and environmental work associated with the Newark-Elizabeth maintenance yard. These grants will probably be applied for before the end of fiscal year 1994.

Orlando (OSCAR)—$2.50 million. Orlando has selected a bus alternative, rather than the OSCAR trolley, as the locally preferred alternative. FTA is currently considering whether or not the funds appropriated for OSCAR may be used to advance the bus alternative. A statutory fix may be needed.

Salt Lake City (South LRT)—$1.95 million. The Utah Transit Authority is completing preliminary engineering, and does not need the unobligated funds for this phase of project development. If funding is obtained, this project may enter the final design stage in fiscal year 1995.

Cleveland (Dual Hub)—$3.45 million. Alternatives analysis is currently underway, with an expected completion date of late 1994 or early 1995. The transit agency intends to use the $3.45 million for the subsequent preliminary engineering phase.

Kansas City (South Corridor)—$1.13 million. On March 10, FTA obligated $200,000 of this amount leaving $.93 unobligated. The remaining funds are being reserved for preliminary engineering. FTA expects to receive an application for these funds before the end of fiscal year 1994.

St. Louis (St. Clair Corridor)—$4.44 million. These funds are being reserved for the preliminary engineering phase, which would follow the current alternatives analysis study and selection of a preferred alternative. It is conceivable that FTA will be in a position to consider a grant for preliminary engineering in the first quarter of fiscal year 1995.

San Diego (Mid-Coast Corridor)—$3.59 million. The Metropolitan Transit Development Board intends to use these funds for preliminary engineering once the alternatives analysis phase is completed and a locally preferred alternative is selected. The alternatives analysis has been progressing slowly, but could be completed before the end of fiscal year 1994.

Los Angeles (LOSSAN Commuter Rail)—$10.00 million. The environmental process is not yet complete, and 13(c) issues remain to be resolved. FTA does not expect to be in a position to make a grant before fiscal year 1995.

New Jersey (Hawthorne Commuter Rail)—$38.67 million. Preliminary planning and an environmental assessment are currently underway. The unobligated funds are intended for the capital portion of this project, which cannot begin until planning and environmental requirements are met. FTA does not expect to be in a position to make a capital grant until the latter part of fiscal year 1995.

New York (Midtown Ferry)—$1.00 million. FTA expects the City of New York to submit a grant application for these funds in the fourth quarter of fiscal year 1994. The grant would allow for the construction and/or rehabilitation of a docking facility on Staten Island. The city is negotiating with an operator to run the service.

San Jose (Gilroy Commuter Rail)—$8.00 million. The Joint Powers Board indicates that it does intend to use these funds in the near term, contrary to previous indications. However, federal environmental requirements have not yet been addressed, and 13(c) issues remain to be resolved. FTA does not expect to be in a position to make a grant before fiscal year 1995.

Seattle (Commuter Rail)—$18.43 million. A corridor planning study and environmental assessment are currently underway, with a likely completion date in mid-1995. Once planning and environmental requirements are met, FTA would be in a position to issue a grant for more advanced stages of project development.

Vallejo, CA (Ferry)—$8.00 million. The environmental process is not yet complete, and 13(c) issues remain to be resolved. A court decision is also under appeal. Nevertheless, FTA could be in a position to obligate a portion of the $8 million before the end of fiscal year 1994.

Detroit (Woodward)—$10.00 million. The City of Detroit has applied for $219,000 of these funds to review the LRT planning work done in the 1980's. It is not known when Detroit will seek the remaining funds.

New Jersey (Lakewood-Freehold-Matawan Commuter Rail)—$2.98 million (the 3(j) report incorrectly showed $1.80 million). Preliminary planning and an environmental assessment are currently underway. FTA does not expect to be in a position to make a grant for more advanced project development before the latter part of fiscal year 1995.

Philadelphia (Cross County)—$1.20 million. The Southeastern Pennsylvania Transit Authority (SEPTA) is currently involved in early planning activities, to be followed by a more detailed corridor level analysis. SEPTA intends to begin the corridor study by the end of 1994 and will seek to use all or part of the unobligated funds for this purpose.

ALLOCATION OF DISCRETIONARY FUNDING

Mr. CARR. The 1994 conference agreement included $45,000,000 in funding to be allocated at the discretion of the Secretary. How has that funding been allocated?

[The information follows:]

A total of $44.4 million was available for discretionary allocation from the fiscal year 1993 Honolulu earmark after the oversight takedown was applied. These funds were allocated to two projects: $34 million for the Los Angeles MOS–3 Metrorail project; and $10.4 million for the Portland Westside light rail project. These were the only projects that has shortfalls in the federal funding of their full funding grant agreements.

SAN FRANCISCO PROJECTS

Mr. CARR. Page 19 of the report indicates that the total section 3 costs of the San Francisco Area/Tasman & Airport projects exceeds the ISTEA earmarks. By how much is the ISTEA earmark exceeded?

[The information follows:]

Based on the cost estimates of the current locally preferred alternatives in the Tasman and Airport Corridors, the proposed federal share of the two projects would exceed the $500 million ISTEA earmark by about $387 million. However, BART is currently preparing a supplemental draft environmental impact statement which is considering more expensive alternatives. If one of these alternatives is selected the proposed total Bay Area federal share could increase even more substantially.

Mr. CARR. The same page indicates that the strong local financial support of transit "is the major reason for the Department's support of both the BART Airport and Tasman projects." Given the low ratings of the Tasman project in nearly every category considered, why should just one feature of a project, that being the level of local financial support, receive so much weight?

[The information follows:]

All projects are evaluated according to the range of project justification criteria, which are contained in section 3(i) Of the FT Act. Section 3(i)(1)(B) states that projects must be "justified based on a comprehensive review of * * * mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies * * *" Section 3(i)(1)(C) further requires that projects be "* * * supported by an acceptable degree of local financial commitment, including evidence of stable and dependable funding sources to construct, maintain, and operate the system or extension." These criteria are applied evenly to all projects.

The Tasman LRT is part of a program of interrelated projects to be considered together, for the purposes of federal requirements, under Section 3(a)(8)(C)(ii) of the FT Act. This program of projects in turn makes up the federally-assisted portion of a much larger regional program of transit expansion. This regional program includes significant BART extensions in the East Bay area, which is to be funded 100 percent from non-federal sources, and the relocation of the Caltrain station in downtown San Francisco, which will require no section 3 funding. Thus, the section 3 share for the region's entire program of fixed guideway extensions is only 27 percent. This is a significant indication of local financial support for transit in a very transit dependent region and is a major reason for the Department's support of both the BART Airport and Tasman projects.

SOUTH BOSTON PIERS

Mr. CARR. The narrative on page 21 indicates that an additional $40 million is needed for the South Boston Piers project to accomplish those aspects of the project in common with the Central Artery/Third Tunnel project. In order to preserve the option on the Piers project, when would that funding be required?

[The information follows:]

According to current construction schedules, the costs associated with those elements of the Boston Piers transit facility that are common with the Central Artery project will be incurred in 1995. No funds were requested in the 1995 budget request, however, the project could still proceed with the possibility of federal reimbursement in the future years. The state budget provides substantial bonding authority for the Piers project.

Mr. CARR. The report contains the following statement on the South Boston Piers project: "While the downtown Boston office market was quite strong during the 1980s, the current real estate market is such that the timing and intensity of development projected for the Piers area is uncertain."

With that consideration, what is the status and likely timing of a letter of intent and/or full funding grant agreement for the South Boston Piers project?

[The information follows:]

In mid-May, FTA signed the Record of Decision for the Piers project, documenting completion of the environmental process. FTA is now in a position where it could make a funding commitment to the project.

As indicated in the Section 3(j) report, the Department considers the common elements of the Piers and Central Artery projects to be a candidate for a letter of intent (LOI). FTA has also held initial discussions with the Massachusetts Bay Transportation Authority concerning a possible full funding grant agreement. It is anticipated that FTA decisions on a lOI and/or FFGA will be made in context of the fiscal year 1996 budget development process.

CHICAGO CENTRAL AREA CIRCULATOR

Mr. CARR. Provide details of the membership and recommendations offered by the review panel considering the design and operation of the Chicago Central Area Circulator project.

[The information follows:]

The following individuals participated in the peer review process: Donald MacDonald, past project manager of Portland LRT; Thomas F. Larwin, General Manager of Metropolitan Transit Development Board in San Diego; George Chien, the Toronto Transit Commission's Operational Planning Chief; and Herbert Levinson, transportation consultant to FTA for the Chicago Central Area Circulator (CAC) project.

The peer group concluded that there were no fatal flaws present that would preclude CAC operations; however, they found that there were a number of design/operating plan elements that taken together could cause significant problems. The peer group recommended certain areas for further study. These areas included; track segments with three overlapping routes, certain alignments and facilities, consideration of Riverbank-North route as the initial operating segment, and consideration of a three route operating plan in lieu of the current four route plan.

Mr. CARR. Concerning the Chicago circulator project, the report makes the following observation on page 22: "Provided the operation difficulties mentioned above are addressed to the Department's satisfaction, this project is a candidate for a letter of intent."

Why does the Chicago Circulator project have to resolve difficulties to the Department's satisfaction before an LOI can be considered when the Tasman project, with a potentially serious financial issue, receives an LOI before the resolution of the difficulty?

[The information follows:]

Although FTA has been directed to negotiate multiyear grant agreements for other projects, including Chicago, the Tasman project is the only one that has reached an appropriate level of project development at this time to warrant issuance of a LOI. Final design activities are well underway for the Tasman project, and the final environmental impact statement (EIS) has been submitted to FTA. The Chicago Circulator has yet to complete preliminary engineering activities, and the final EIS is still pending.

The LOI for the Tasman project signals an intent to proceed with the project, provided the difficulties surrounding the tax initiative for the local share are resolved. The project will not proceed unless and until the issue is resolved. The difficulties with the Chicago Central Area Circulator concern the design of the system and the chosen technology, and are arguably more serious. If project development continues before these issues are resolved, it may later be determined that significant alterations are necessary to ensure the success of the project. The earlier any such alterations can be made in the engineering and design processes, the less the potential for later delays, overruns, and inefficient use of resources.

Mr. CARR. Why hasn't the Federal Transit Administration treated these projects in an equitable manner?

[The information follows:]

The Federal Transit Administration has treated all New Starts projects in an even-handed, equitable manner. Projects that have existing or pending FFGAs should be funded before any new commitments are made. Statutory authorizations contained in the ISTEA are honored to the extent that projects are ready to obligate funding. All projects, whether or not exempt from the criteria, are equally evaluated under the project justification, finance, and process criteria established by section 3(i) of the FT Act. LOIs, ultimately anticipating FFGAs, are issued to projects which have proceeded to the point that their justification and level of local financial commitment can be established with some certainty. In order to best manage limited financial resources, funds are not allocated to projects until they have reached a sufficient state of readiness to actually obligate funding.

ORANGE COUNTY TRANSITWAY

Mr. CARR. Concerning the Orange County Transitway, the section 3(j) report notes that "The Department currently views the intermodal center as separate from the transitway ramps and related bus acquisition activities. Until issues surrounding the intermodal center are resolved, it is premature to consider this project for a future federal funding commitment."

Once again, why does this project have to resolve its difficulties before a letter of intent or full funding grant agreement can be negotiated, while the Tasman project will probably receive an LOI before the resolution of its difficulties?

[The information follows:]

A primary difference between the Tasman and Orange County projects is the stage of project development. The Tasman project has completed the environmental process and is now in final design. Alternatively, the Orange County Transitway project is still in the preliminary engineering stage and the scope and timing of certain aspects of the project have recently changed. For example, under the new proposal, the Orange County Transportation Agency proposes to delay the acquisition of buses and construction of critical park and ride lots. Additionally, an environmental analysis of alternative sites for the intermodal center has not been performed. These are critical path issues which need to be resolved before the project can move forward in the project development process and thus be a candidate either for a letter of intent or full funding grant agreement.

Mr. CARR. Under the currently proposed plan, what portion of the total intermodal center costs are borne by the FTA?

[The information follows:]

Under the currently proposed plan for the intermodal center, the Orange County Transportation Agency (OCTA) is requesting $127 million in section 3 funds towards a total cost of $219 million or a 58 percent federal share. The number of parking spaces set aside for transit is expected to be less than 10 percent. FTA has advised OCTA that the FTA share should be commensurate with the transit benefit.

Mr. CARR. How many parking spaces will the intermodal center contain? How many of the parking spaces are devoted to the transitway?

[The information follows:]

The total number of parking spaces at the intermodal center is estimated to be 12,000. The number of spaces reserved for transit is 1,000 or about eight percent.

Mr. CARR. What is the Department's opinion of the Orange County Transitway project if the intermodal center is not considered as integral to the project?

[The information follows:]

The original project package included the transitway segments and related direct access ramps, park and ride lots and bus acquisitions sufficient to support expanded service. FTA has been supportive of this project in the past because it included all of the elements necessary for a successful rapid transit system. The cost effectiveness index was $4 per new trip, which made it one of the most cost effective in the new starts pipeline. (A cost effectiveness index for the new proposal has not yet been calculated.) If the intermodal center were not considered as integral to the project, and if Orange County would agree to provide the bus expansion and park and ride facilities concurrent with the ramps, FTA would again be supportive.

ORLANDO STREETCAR PROJECT

Mr. CARR. The section 3(j) report indicates the Orlando Streetcar (OSCAR) project will be an electrified trolley system separated from traffic. Hasn't there been a more recent change in the program that would replace the proposed trolleys with rubber-wheeled buses?

[The information follows:]

The Orlando City Council met on Monday, April 18, and unanimously approved changing the locally preferred alternative to a rubber-tired trolley (bus) project.

Mr. CARR. What is the reason for and impact on cost and schedule of the change in the Orlando project?

[The information follows:]

According to the preliminary information we have, the primary reason for switching to a bus alternative is the lower cost. The capital cost of the streetcar alternative originally selected is $47 million (1991 dollars), compared to the best bus alternative at $21 million (1991 dollars). Another reason may be that the Regional Transportation Authority in Orlando intends to look at a comprehensive rail system in the area and therefore is deferring any rail construction until this broader study is completed.

We have not yet received a revised schedule based on selection of the bus alternative. However, it is likely that the construction schedule would be shorter for the bus project.

DALLAS SOUTH OAK CLIFF LRT PROJECT

Mr. CARR. The proposed budget includes $33.77 million for the Dallas South Oak Cliff light rail transit project. Recent press reports have indicated that problems with land acquisition may lead to cost overruns and delays in the start of revenue service. One article indicated that several contracts scheduled to go out for bid have been held up until controversy involving merchants along Lancaster Road is resolved. The project's chief engineer is quoted as saying: "If I have to redesign, it will cost at least $18 million plus a year's delay." How accurate are these reports?

[The information follows:]

The newspaper reports were accurate, but the issue has now been resolved with an agreement between DART and the City of Dallas to implement several very minor, low-cost design changes to the South Oak Cliff project in this area.

Mr. CARR. Are you certain that the project requires additional funding in fiscal year 1995, or might these issues delay the effective use of additional federal funding in 1995?

[The information follows:]

DART has resolved the Lancaster Road issues and will be able to proceed expeditiously and effectively utilize the $33.77 million in fiscal year 1995, which will complete FTA's financial obligation under the terms of the full funding grant agreement.

JUSTIFICATIONS

PASSENGER FRIENDLY TRANSIT

Mr. CARR. According to page 4 of the justifications, under the transit planning and research national program, "Projects will maximize the opportunities of transferring existing military technology in areas such as advanced materials and communications to the transit industry to provide 'passenger-friendly transit.'" Explain exactly what is meant by "passenger-friendly transit" and give examples of projects that either have been funded or are considered to be funded in 1995.

[The information follows:]

Usage of the term "passenger friendly transit" encompasses several attributes that place the needs and expectations of the customer above all to provide affordable, safe, comfortable, and easy-to-use transit with convenient links to other modes of transportation. Such a transit system would address the needs of all passengers including the disabled, elderly, and economically disadvantaged. It would offer a competitive alternative that is environmentally sound and energy efficient to the use of the automobile.

Projects under consideration for fiscal year 1995 include those that are suitable for command, control and communications technologies and advanced materials of the military. The former can advance the state-of-the-art in operations, customer information, and intermodalism across modes. Real-time monitoring of vehicle location and health improves operational efficiency, safety, and resource utilization. Accurate and timely customer information, disseminated in easy-to-follow methods, helps customers evaluate alternatives for potential shift to transit as a preferred choice. Use of advanced materials in vehicles and subsystems improves durability and provides a better riding environment.

CLEAN AIR ACT CONFORMITY REVIEWS

Mr. CARR. The justifications state (page 3) that the FTA will conduct more than 125 conformity reviews under the Clean Air Act in 1995. What is the level of detail conducted in these reviews? How many person years does the FTA devote to these reviews?

[The information follows:]

The new, more stringent air quality conformity process under the Clean Air Act Amendments of 1990 is a complex process, both for the MPOs that have to develop the new, more detailed long-range plans and transportation improvement programs (TIPs) and the DOT staff who have to review the MPOs' initial conformity determinations for reasonableness. There is no question that to do this job right, FTA needs more staff than we now have.

Generally, the conformity review process for FTA involves the following tasks: checking to see that transit projects are identified in sufficient detail in plans and TIPs; determining whether proposed transit improvements have been coded into regional transportation system data-set used in travel modeling and, thus, factored into the required regional emissions analysis for the plan and the TIP; checking the reasonableness of key growth assumptions (population, employment, vehicle miles of travel) underlying the plan and TIP; determining whether the conforming plan and TIP are actually 'fiscally constrained'. Obviously, this review is more difficult and time-consuming in the largest metropolitan nonattainment areas like New York, Chicago, and Los Angeles.

Conformity reviews must be done for every new long-range plan and major revision to the plan and for each new TIP and TIP amendment if the amendment involves any project which is not exempt from the conformity requirements. We estimate that, on average, a nonattainment area will have to do conformity analysis for the plan every two to three years and for the TIP every one to two years. We estimate that in 1995, FTA will devote 10 to 12 person years to conformity reviews on plans, TIPs, and projects seeking FTA funds.

REQUESTED FTE INCREASE

Mr. CARR. The 1995 budget request includes funding for an increase of 20 full-time equivalents. What is the amount of funding included in the budget for the additional FTE's? What is the breakdown of the requested new FTE's among planning, oversight, civil rights, and other activities?

[The information follows:]

The amount of funding included in the 1995 budget request for an additional 20 FTE's is $1.384 million. This amount covers salaries, benefits, travel, supplies, equipment and other administrative costs associated with the increase. The 20 FTE's, plus an additional 8 FTE's transferred from headquarters, will be allocated to the regions, as follows:

Activity:	*No. of FTE*
Planning	12
Oversight	6
Civil Rights	4
Other Activities (Management and Operations)	6

PROPOSED NEW GENERAL PROVISION ON FUNDING

Mr. CARR. The budget request includes a new general provision [Section 321) affecting funds appropriated under the Federal Transit Act before October 1, 1993. What amount of funding would this provision affect? What is the perceived need for this provision? What is the impact if the proposed language is not agreed to by the Congress?

[The information follows:]

This continues, and expands, a similar provision in section 3037 of the Intermodal Surface Transportation Efficiency Act (ISTEA), and would allow funds provided in old funding categories to be aligned with funds in new funding categories that fund the same type of projects. This provision will affect about $37 million. Essentially, we are requesting to clean up our accounting by combining 15 specific small accounts with other existing accounts funding the same type projects. For example, we will be able to combine several section 18 appropriations into one account. This will reduce the accounting efforts of our grantees as well as for FTA by allowing only one code to be used instead of several for the same project that is using multi-year funds.

1995 BUDGET PROPOSALS

Mr. CARR. The 1995 budget proposes that all funding for administrative expenses, university transportation centers, and transit, planning and research be derived from the general fund. In prior years, both general funds and trust funds were provided for these activities. Why has a change been requested?

[The information follows:]

It is a more logical approach and we wish to streamline our accounting activities. ISTEA provides funding for all the FTA programs, except for section 3 discretionary grants under section 21(a) and 21(b). The way the legislation is written could be interpreted that the formula grants, administrative expenses, university research centers and transit planning and research accounts should be split-funded, i.e., use both trust fund and general fund resources. This is how FTA has operated in fiscal year 1993 and fiscal year 1994. This has caused a number of problems and much confusion. The language in the appropriations bills has been very complicated and difficult to understand because the general fund amount is included and then the total funding limit for each appropriation. Also, FTA has been required to set-up a trust fund share account that requires numerous accounting transactions to transfer funds to the four operating accounts. The Department and the Office of Management and Budget have determined that split-funding was at our option. Therefore, in fiscal year 1995 we are requesting to align the trust funded resources only with the formula grants programs and simplify our accounting.

Mr. CARR. The justifications state: "In 1995, the FTA proposes to use trust fund and general resources for only the formula grants programs. In this manner these trust fund resources will fund accounts that are distributed more widely to the areas that paid gasoline taxes. Centralizing trust funds in one appropriation allows efficiency in the management and accounting of these funds."

Please elaborate on the reasons for the proposed change, with special clarification regarding distribution to areas that paid gas taxes.

[The information follows:]

In addition to the streamlining of accounting and the elimination of confusion in our appropriations bills we think this is a logical approach. Funding only formula grants programs, which are distributed by formula, with trust funds rather than funding administrative and research activities, will essentially put the funding from the gas tax collected through the highway trust fund for transit back in the areas that paid for it. Formula grants are distributed to all urbanized areas and non-urbanized, or rural, areas nationwide based on population, population density and a number of transit operational factors.

TRANSIT BENEFIT PROGRAM

Mr. CARR. The budget includes $188,000 for the transit benefit program. How many FTA employees participate in this program? Where are they located?

[The information follows:]

There are currently 297 employees participating in the program. The following chart includes a breakdown:

Headquarters, Washington, DC	182
Region 1, Boston, MA	0
Region 2, New York, NY	21
Region 3, Philadelphia	21
Region 4, Atlanta, GA	12
Region 5, Chicago, IL	20
Region 6, Fort Worth, TX	0
Region 7, Kansas City, MO	0
Region 8, Denver, CO	8
Region 9, San Francisco, CA	23
Region 10, Seattle, WA	10
Total	297

ADMINISTRATION EXPENSES

Mr. CARR. Under the administrative expenses account, the Department of Transportation working capital fund reflects an increase of $446,000, or 9.4 percent in 1995. What are the reasons for this significant increase?

[The information follows:]

The primary reason for the 1995 increase in the working capital fund is the transfer to that account of a number of activities that in previous years had been funded by reimbursable agreements with OST within the administrative expenses account. These include training courses sponsored by OST, drug education and awareness program, consolidated personnel management information system, and the extended local area network/intermodal data network. An offsetting reduction was taken in the contractual support area to reflect the transfer to the working capital fund.

Mr. CARR. Explain why the amounts budgeted for administrative expenses equipment varies from $544,000 in 1993 to $85,000 in 1994 to $296,000 in 1995.

[The information follows:]

In 1993, we continued our equipment replacement and technology upgrade program which began in 1991 with funding that became available as a result of reducing discretionary spending. In 1994, due to budget constraints resulting from absorption of the 1994 pay raise, the equipment allocation was drastically reduced, necessitating a deferment of the replacement program. Our 1995 request will allow us to upgrade or replace failing equipment.

Mr. CARR. The administrative expenses budget request includes $295,000 for the annualization of the fiscal year 1994 pay raise. The 1994 portion of this raise was absorbed within the account; is that correct?

[The information follows:]

Yes, the 1994 portion of this raise was absorbed within the account.

Mr. CARR. Why shouldn't the 1995 portion of the 1994 raise also be absorbed within the administrative expenses account?

[The information follows:]

Absorption of the 1995 portion of the 1994 raise would be a hardship because of previous years' reductions to the budget base. Absorption really means that areas such as travel, overtime, equipment and training, the only areas over which we have control, would have to be further reduced beyond the mandatory 3 percent administrative costs reduction already applied in 1994 and in the 1995 budget request. These items make up about 3 percent of our budget. Absorbing the 1995 portion of the pay raise would require a 20 percent cut in each of these areas and would compound an already difficult budget situation.

Mr. CARR. The administrative expenses budget also reflects a $253,000 administrative costs reduction. Exactly how will these savings be realized?

[The information follows:]

These savings will be realized by reducing working capital fund costs that can be controlled, such as ADP and printing services; reducing travel, training and other discretionary items of expense.

ELECTRONIC CLEARING HOUSE OPERATION

Mr. CARR. A $100,000 increase in 1995 has been requested for grantee payment system improvements. The justification states: "Implementation of the electronic clearing house operation will result in more timely disbursements to grantees, reduced operational and system support costs and improved cash management oversight."

Please elaborate on the nature and amount of the estimated savings. What is the cost benefit ratio for the ECHO system?

[The information follows:]

The nature and the estimated amount of annual savings for the electronic clearing house operation (ECHO) system improvement and enhancements consists of:

	Amount
Consolidate the database to a single operational platform, thereby reducing maintenance and support costs	$31,500
Automate the status of federal funds report for cash management oversight, thus reducing paperwork	9,000
Estimted annual savings (cost-benefit ratio over a five year period is estimated to be 1:2)	40,500

The ECHO system is an essential element of FTA's program delivery process. Federal assistance is only consummated when the grantee actually receives cash on approved grants. This investment will also achieve qualitative improvements that will benefit our grantees such as more user friendliness, quicker access to cash and increased data about payment status.

REVIEW OF PARATRANSIT PLANS

Mr. CARR. Twelve FTE are requested in 1995, partly to review 540 ADA paratransit plans. How many plans did the FTA review in 1994 and how many FTE were required for the reviews? Since personnel reviewing ADA paratransit plans in 1994 were not available for other activities, what was the impact on other FTA operations?

[The information follows:]

In 1994, and again in 1995, the FTA will review approximately 540 ADA paratransit plans. In the regional offices, ten FTE are required each year to review ADA paratransit plans, monitor progress on ADA implementation, manage certain contractor resources, and provide technical assistance on all aspects of the ADA implementation regulation.

With respect to providing technical assistance, the purview of the ADA statute is broad ranging and extends beyond our primary public transit role to other types of transportation for the public. FTA is responsible for working with private transportation providers (taxis, shuttle services), as well as public transit, on ADA requirements affecting vehicle procurements and vehicle operating procedures, in addition to our role of responding to concerns from various individuals and groups.

Given FTA's constrained staffing resources, the impact of the ADA, the CAAA, planning and other new regulations on the workload of the agency has been significant. Implementing these new requirements has been accommodated through the absorption of increased workloads by existing staff.

ADA/DBE NONCOMPLIANCE COMPLAINTS

Mr. CARR. The justifications indicate that the FTA has experienced an increase in the number of complaints filed for alleged noncompliance with ADA and DBE programs. For the last three years, provide the number of such complaints, along with location and final disposition.

[The information follows:]

The Federal Transit Administration received 40 ADA complaints in 1992, all of which are resolved and closed. In 1993, FTA received 119 ADA complaints, resolved and closed 80 and has 39 open. In the first three and a half months of 1994, FTA has received 237 complaints, resolved and closed 39 and has 198 open cases. The FTA has a total of 237 complaints it is currently investigating.

The above complaints involve over 70 FTA grantees nationwide. A partial listing includes: Suffolk County Department of Public Works, Massachusetts Bay Transit Authority, New Jersey Transit Corporation, New York Metro Transit Authority, New York City Transit Authority, Washington Metro Area Transit Authority, Southeastern Pennsylvania Transit Authority, Metropolitan Rapid Transit Authority, Chicago Transit Authority, Pinellas Suncoast Transit Authority, Bi-State Development Agency, New Orleans Regional Transit Authority, Houston Metropolitan Transit Authority, Dallas Area Rapid Transit, Los Angeles County Transit Commission, San Francisco Bay Area Regional Transit District and the California Department of Transportation. Most of the large transit authorities have fewer than 10 complaints against them.

The FTA received 2 DBE cases in 1992, 8 in 1993, and 4 cases in the first three months of 1994. All cases are open.

Mr. CARR. Provide the details by contractor and location of each contractor in the FTA's DBE program that has been debarred.

[The information follows:]

The Federal Transit Administration is unable to answer this question, since individual debarments are not tracked by the agency. Each grant recipient, however, maintains a record of pertinent debarred DBEs.

Mr. CARR. Provide details by lawsuit and location of all active lawsuits against the FTA for alleged noncompliance with ADA and DBE programs.

[The information follows:]

There are no current active lawsuits against the FTA for alleged noncompliance with the ADA and DBE programs.

FTE REDUCTIONS PURSUANT TO EXECUTIVE ORDER 12837

Mr. CARR. Provide details on the eight FTE reduction the FTA must apply pursuant to Executive Order 12837, including location and activities affected.

[The information follows:]

The eight FTE reduction will be accomplished by reducing the number of senior level managers (SES, GM–14/15 positions) in headquarters staff. We expect to achieve this reduction through the voluntary separation incentive program.

FORMULA GRANTS FROM GENERAL FUND

Mr. CARR. In 1993, 38.3 percent of the budget authority for the formula grants program was derived from the general fund, with the balance coming from the highway trust fund. In 1994, the general fund percentage was 53.2. In 1995, the general fund percentage increases yet again to 59.9. What are the reasons for this trend?

[The information follows:]

FTA has consistently tried to use the full authorization in trust funded resources to fund the programs authorized under section 21(a) formula grants of ISTEA. This includes all FTA program, except section 3 discretionary grants. The authorization legislation provides that approximately 62 percent of the 21(a) fund be general funds and 38 percent be trust funds. In 1993 the formula grants programs (i.e., sections 9, 16 and 18) totaled $1.7 billion and about $.7 billion, 38.3 percent, was made available from the general funds. In 1994 the formula grants funds were significantly increased to $2.4 million (more in line with the 1992 level), therefore the general fund portion had to increase substantially to $1.3 billion, or 53.2 percent of the total because trust funds authorized for these programs is somewhat constant. In 1995, we request additional funding in formula grants to the $2.8 billion level, of which 59.9 percent is general funded, again because the trust funds authorized for these programs are limited to $1.1 billion, therefore any increase must be general funded.

ISTEA TRANSIT DEMONSTRATION PROJECTS

Mr. CARR. Update the information appearing on pages 972–976 of the 1994 hearing volume concerning ISTEA demonstration transit projects.

[The information follows:]

The updated information on demonstration transit projects follows. The cost estimates for new start projects were taken from table 2 of the 1995 section 3(j) report with adjustments to represent inflation. Where the cost estimate given in the section 3(j) report for any project was not in current dollars, that cost estimate was inflated at an annual rate of 4 percent to the assumed midpoint of construction. The midpoint of construction was assumed to be 1997 for any project now in preliminary engineering, 1999 for any projects now in alternatives analysis, and 2001 for any project now in systems planning. None of the bus and bus related projects have changed in status since last year's report. Where a range of costs is given in the section 3(j) report, the midpoint of the range has been assumed.

ISTEA DEMONSTRATION TRANSIT PROJECTS

SECTION NUMBER OF ISTEA	PROJECT LOCATION AND DESCRIPTION	ISTEA AUTHORIZATION EARMARKS (In million $)	ESTIMATED TOTAL PROJECT COST (In Million $)	ESTIMATED SECTION 3 COST (In Million $)
3031	Northern New Jersey: Urban Core Project	634.4		
	• Hudson Waterfront		1,020	970*
	• Secaucus Transfer		374	374*
	• Kearny Connection		N/A	N/A
	• Waterfront Connection		N/A	N/A
	• Northeast Corridor Signal Sys.		N/A	N/A
	• Newark-Newark International Airport- Elizabeth Transit Link		1,030	1030*
	•Rail Connection between Penn Station (Newark) and Broad St.		N/A	N/A
	• New York Penn Station Concourse, and associated equipment.		N/A	N/A *Previous expenditures constitute local match in accordance with Section 1044 of ISTEA.
3032	San Francisco Bay Area Rail Extensions	568.5		
	• Airport Extension		960	720
	• Tasman Corridor Project		480	240
	• Colma Extension		171	127
3033	New York: Queens Local-Express Connection	306.0	645	322
3034	Los Angeles: Metro Rail Project (MOS-3)	695.0*		
	• Mid City		491	245
	• North Hollywood		1,310	655
	• Eastside Extension (MOS-3 portion)	*Plus $535 million in advance construction authority	660	330

ISTEA DEMONSTRATION TRANSIT PROJECTS

SECTION NUMBER OF ISTEA	PROJECT LOCATION AND DESCRIPTION	ISTEA AUTHORIZATION EARMARKS (in Million $)	ESTIMATED TOTAL PROJECT COST (In Million $)	ESTIMATED SECTION 3 COST (In Million $)
3035	Miscellaneous Multiyear Contracts			
(a)	• Hawthorne, NJ-Warwick, NY Commuter Rail Service	46.9	N/A	N/A
(b)	• Portland, OR-Westside Light Rail Project	515.0	688	515
(c)	• Vallejo, CA - North Bay Ferry Service	17.0	N/A	N/A
(d)	• New York, NY - Staten Island -Midtown Manhattan Ferry Service	12.0	N/A	N/A
(e)	• Chicago, IL - Central Area Circulator Project	260.0	775	260
(f)	• Salt Lake City, UT - Light Rail Project	131.0	335	84
(g)	• Los Angeles, CA - Los Angeles - San Diego Rail Corridor Improvement Project	20.0	32	20
(h)	• San Jose, CA - Gilroy-Hollister Commuter Rail Project	21.0	N/A	N/A
(i)	• Dallas, TX - Dallas Light Rail Project	160.0	360	160
(j)	• Boston, MA - South Boston Piers Transitway Project	278.0	741	593
(k)	• Kansas City, MO - Kansas City Light Rail Project	5.9	290	230
(l)	• Orlando, FL - Orlando Streetcar (OSCAR) Downtown Trolley Project	5.0	50	40
(m)	• Detroit, MI - Detroit Light Rail Project	20.0	N/A	N/A
(n)	• Altoona, PA - Bus and Bus Related Equipment Purchases	2.0	3	2

ISTEA DEMONSTRATION TRANSIT PROJECTS

SECTION NUMBER OF ISTEA	PROJECT LOCATION AND DESCRIPTION	ISTEA AUTHORIZATION EARMARKS (In Million $)	ESTIMATED TOTAL PROJECT COST (In Million $)	ESTIMATED SECTION 3 COST (In Million $)
3035				
(o)	• Long Beach, CA - Long Beach Metro Link Fixed Rail Project	4.0	N/A	N/A
(p)	• Lakewood-Freehold-Matawan or Jamesburg,NJ-Commuter Rail Project	7.8	N/A	N/A
(q)	• San Francisco, CA - Multimodal Transportation Parking Facility	2.5	N/A	N/A
(r)	• Charlotte, NC - Charlotte Light Rail Study	0.5	820	535
(s)	• Atlanta, GA - Buckhead People Mover	0.2	N/A	N/A
(t)	• Cleveland, OH - Cleveland Dual Hub Rail Project	5.0	510	255
(u)	• San Diego, CA - San Diego Mid Coast Light Rail Project	27.0	270	215
(v)	• Chattanooga, TN - Chattanooga Downtown Trolley Project	2.0	3	2
(w)	• Northeast, OH - Northeast Ohio Commuter Rail Feasibility Study	1.6	N/A	N/A
(x)	• Dallas-Fort Worth, TX -- RAILTRAN Commuter Rail Project	5.7	101	58
(y)	• Johnstown, PA - Bus and Bus Related Equipment Purchases	1.6	2	2
(z)	• Eureka Springs, AR - Bus Purchase	0.1	0	0
(aa)	• Tucson, AZ - Tucson Dial-a-Ride Project	8.0	10	8
(bb)	• Long Beach, CA - Long Beach Bus Facility Project	13.9	17	14
(cc)	• Philadelphia, PA - Park-and Ride Lot	4.0	5	4

ISTEA DEMONSTRATION TRANSIT PROJECTS

SECTION NUMBER OF ISTEA	PROJECT LOCATION AND DESCRIPTION	ISTEA AUTHORIZATION EARMARKS (In Million $)	ESTIMATED TOTAL PROJECT COST (In Million $)	ESTIMATED SECTION 3 COST (In Million $)
3035				
(dd)	• Nashville, TN - Nashville Intermodal Terminal	3.7	5	4
(ee)	• Akron, OH - Main Street Transit Mall	1.5	2	2
(ff)	• Chicago, IL - People Mobilizer	2.3	3	2
(gg)	• State College, PA - Centre Area Transportation Authority Reimbursement	1.0	1	1
(hh)	• Key West, FL - Bus Purchases	0.2	0	0
(ii)	• Boston, MA - North Station - South Station Rail Link	0.3	3,000	N/A
(jj)	• Buffalo, NY - Metro Bus Transit Centers	2.0	3	2
(kk)	• State of Michigan - Bus and Bus Related Equipment Purchases	61.0	76	61
(ll)	• Ann Arbor, MI - Advanced Fare Technology Purchase	1.5	2	2
(mm)	• San Francisco, CA - BART Parking	12.6	16	13
(nn)	• State of Maryland -- Baltimore-Washington Transportation Improvement Program			
	· Baltimore - Central Light Rail Extension	60.0	106	85
	· Frederick and Waldorf - MARC Ext.	160.0	N/A	N/A
	· Largo - WMATA Rail Extension	5.0	430	N/A
(oo)	• Milwaukee, WI - Milwaukee East-West Corridor Project	200.0	990	N/A

ISTEA DEMONSTRATION TRANSIT PROJECTS

SECTION NUMBER OF ISTEA	PROJECT LOCATION AND DESCRIPTION	ISTEA AUTHORIZATION EARMARKS (In Million $)	ESTIMATED TOTAL PROJECT COST (In Million $)	ESTIMATED SECTION 3 COST (In Million $)
3035				
(pp)	• Boston, MA and Portland, ME - Boston to Portland Transportation Corridor	30.0	50	30
(qq)	• Philadelphia, PA - Northeast Philadelphia Commuter Rail Study	0.4	1	0
(rr)	• Atlanta, GA - Atlanta Commuter Rail Study	0.1	0	0
(ss)	• Pittsburgh, PA - Pittsburgh Light Rail Rehabilitation Project	5.0	320	255
(tt)	• Atlanta, Ga - North Line RRT Ext.	329.0	497	398
(uu)	• Houston, TX - Houston Priority Corridor Fixed Guideway Project (Regional Bus)	500.0	1,250	625
(vv)	• Jacksonville, FL - Automated Skyway Express Extension	71.2	134	107
(ww)	• Honolulu, HI - Rapid Transit Project	618.0	2,300	1,150
(xx)	• Sacramento, CA - Light Rail Project	26.0	620	495
(yy)	• Philadelphia, PA - Philadelphia Cross-County Metro Rail Project	2.4	100	N/A
(zz)	• Cleveland, OH - Blue Line LRT Ext.	1.2	N/A	N/A
(aaa)	• State of Virginia - Dulles Corridor Rail Project	6.0	1,000	N/A
(bbb)	• Seattle, WA - Puget Sound Core Rapid Transit Project	300.0	2,600	870
(ccc)	• Seattle, WA - Seattle-Takoma Commuter Rail	25.0	310	31
(ddd)	• Altoona, PA - Pedestrian Crossover	3.2	4	3
(eee)	• State of California - Multi-Modal Transit Parkway	15.0	66	15
(fff)	• New Orleans, LA - Canal Street Corridor Light Rail	4.8	130	100
Total		**6,230**	**26,170**	**12,260**

URBAN WORK TRIPS

Mr. CARR. Update the information appearing on page 979 of last year's hearing volume concerning urban work trips.

[The information follows:]

Nationally, the decennial census found that about 6.1 million workers used public transit to get to work in 1990, about the same number as in 1980. However, owing to the large growth in the number of workers during the 1980s, transit's share of the overall national market declined during that period from 6.4 percent of all workers to 5.3 percent of all workers.

In 1980, the share of workers in urbanized areas using transit was 9 percent. We are not yet able to update this information, since although overall data has been released, the details of the 1990 census data on the journey to work are not yet available. However, it can be said that, because the urbanized area market grew, transit's overall share in the urbanized market is likely to be somewhat smaller.

We are also not yet able to develop transit's market share by urbanized areas work trip "flows." The 1992 hearing record included 1970 to 1980 data on transit's share of four work trip "flows:" suburb to suburb, suburb to central city, central city to suburb, and central city to central city. In 1993 we planned to update this for 1990 based on census data then expected to be released in 1993. We later learned that access to the census data in the form needed to connect worktrip origins and destinations is much more difficult than expected. The difficulties relate to census' confidentiality protections. We are proceeding on a different track and hope to have the results for next year's hearings.

A preliminary analysis of worktrip data from the Nationwide Personal Transportation Study (NPTS), however, indicates significant growth in the use of transit by suburban residents. We cannot determine if this means that transit continued to retain its share of worktrips from suburban homes to central city work locations. But this 1990 statistic is consistent with the earlier finding that during the 1970s, transit grew 50 percent among suburbanites who worked in central cities and thus retained its 11.5 percent share in that market niche.

BUDGET SUBMISSION COMPARISONS

Mr. CARR. Provide a side-by-side comparison of the Federal Transit Administration's budget submissions to the Office of the Secretary of Transportation, to the Office of Management and Budget, and to the Congress.

[The information follows:]

FEDERAL TRANSIT ADMINISTRATION
FY 1995 BUDGET REQUESTS
($ IN THOUSANDS)

	FY 1995 FTA Budget Requests		
	Office of the Secretary	Office of Management and Budget	Congressional
FTA'S TOTAL OBLIGATIONAL AUTHORITY:	$5,325,000	$5,325,000	$4,761,890
Formula Grants	**2,834,580**	**2,833,658**	**2,865,050**
Section 9, Urban Formula Operating Assistance	802,278	641,822	600,000
Section 9, Urban Formula Capital Grants	1,811,502	1,971,087	2,049,705
Section 16, Elderly and Disabled	68,675	68,675	61,129
Section 18, Nonurban Formula	152,125	152,074	154,216
Discretionary Grants	**2,000,000**	**2,050,000**	**1,517,000**
Section 3, Bus	400,000	410,000	327,000
Section 3, Rail Mod.	900,000	820,000	760,000
Section 3, New Systems	700,000	820,000	400,000
Section 3, Livable Communities	0	0	30,000
Washington Metro	**200,000**	**200,000**	**200,000**
Interstate Transfer Grants - Transit	**38,530**	**38,530**	**38,530**
Transit Planning and Research	**203,750**	**153,750**	**92,250**
Section 8, Metropolitan Planning	69,188	69,188	41,513
Section 18h, RTAP	7,688	7,688	4,613
Section 26a, State Planning & Research	14,625	14,625	8,475
Section 26b, National Planning & Research	44,625	44,625	26,175
Transit Cooperative Research	14,625	14,625	8,475
National Tranist Institute	3,000	3,000	3,000
Advanced Transit Technology Initiative	50,000	0	0
University Transportation Centers	**6,000**	**6,000**	**6,000**
Administrative Expenses	**42,140**	**43,062**	**43,060**

FAREBOX RECOVERY RATIOS

Mr. CARR. Update the farebox recovery of operating expenses data contained on pages 981–982 of the 1994 hearing volume.

[The information follows:]

The following is a ranking of those systems with rail transit in terms of the share of operating costs covered by fare revenues, based on Section 15 data from 1992. Because transit operators are not required to report fare revenue by mode, for multimodal operators (marked with a "*" in the following chart), the fare recovery ratio is for the operator as a whole, rather than for the rail operations alone:

Operator	Fare Recovery Ratio	Vehicles Operated in Maximum Scheduled Service
Chicago-Metra/BN RR	80.0%	139
San Diego- The Trolley	73.8%	59
NW IN-NICTD	61.9%	39
Philadelphia-PATCO	60.6%	102
Chicago-Metra/C&NW RR	59.2%	277
NY-MTA-Metro-North RR	57.7%	706
NY-MTA-NYCTA *	54.0%	7,973
Chicago-RTA-Metra	52.8%	416
Washington-WMATA *	51.6%	1,970
New Jersey Transit *	49.7%	2,251
NY-MTA-LIRR	47.3%	947
San Francisco-BART	47.2%	450
Chicago-RTA-CTA *	44.9%	2,957
New Orleans-RTA *	44.6%	418
Philadelphia-SEPTA *	43.6%	1,964
Buffalo-NFTA *	42.3%	331
Baltimore-Maryland DOT	40.0%	859
Port Authority-PATH	38.6%	285
Galveston-Island Transit	38.1%	18
Atlanta-MARTA *	36.0%	729
NY-MTA-SIRTOA	35.8%	36

LA-SCRTD *	35.8%	1,933
Pittsburgh-PAT *	34.1%	820
San Francisco-Muni *	33.6%	844
Miami-MDTA *	32.6%	747
Boston-MBTA *	28.8%	1,848
LA-OCTA *	27.9%	646
Portland-Tri-Met *	27.2%	533
Sacramento-RT *	26.2%	239
Cleveland-RTA *	24.9%	749
Seattle-Metro *	24.4%	1,724
Ft. Lauderdale-TCRA	21.2%	20
San Jose-SCCTD *	12.3%	449
Hartford-Conn DOT	1.3%	24

ACCIDENT DATA

Mr. CARR. Update the annual accident data appearing on pages 983–987 of the 1994 hearing volume.

[The information follows:]

Updated information derived from 1992 section 15 reports submitted to the Federal Transit Administration follows.

The abbreviations used on the tables are:

AG—Automated Guideway.
CR—Commuter Rail.
DR—Demand Responsive.
LMB—Large Bus.
MMB—Medium Bus.
RR—Rapid Rail.
LR—Light Rail.
VP—Van Pool.
SMB—Small Bus.

DERAILMENT OR LEFT ROADWAY

Number and Result by Mode

Mode	Incidents	Fatalities	Injuries
LMB	35	0	27
MMB	28	0	6
SMB	15	0	2
AG	0	0	0
CR	42	0	4
HR	28	0	1
LR	27	0	5
DR	3	0	0
VP	0	0	0
ALL	178	0	45

OPERATING STATISTICS

Mode	Vehicle Miles	Passengers	Passenger Miles	Property Damage
LMB	818,634,740	2,915,883,332	9,020,728,495	$13,105,638.91
MMB	594,265,959	1,334,447,953	5,802,019,495	$8,900,791.52
SMB	275,246,814	477,895,578	1,793,207,291	$2,807,956.49
AG	981,072	5,499,402	6,350,377	$11,286.00
CR	205,232,126	296,628,323	6,712,300,852	$2,986,769.00
HR	520,198,883	2,118,769,679	10,613,108,031	$7,333,790.00
LR	28,287,567	187,321,032	686,289,760	$1,184,824.79
DR	72,132,582	13,269,519	114,366,427	$1,074,322.42
VP	12,571,244	3,255,200	84,648,188	$70,367.00
ALL	2,527,550,987	7,352,970,018	34,833,018,916	$37,475,746.13

TOTAL OF INCIDENTS, FATALITIES, INJURIES* & PROPERTY DAMAGE

Mode	Incidents	Fatalities	Injuries	Property Damage
LMB	30,952	56	23,654	$13,105,638.91
MMB	16,222	34	12,090	$8,900,791.52
SMB	5,308	9	4,346	$2,807,956.49
AG	8	0	7	$11,286.00
CR	3,160	74	2,546	$2,986,769.00
HR	15,512	91	10,446	$7,333,790.00
LR	1,492	9	1,268	$1,184,824.79
DR	1,152	0	719	$1,074,322.42
VP	40	0	19	$70,367.00
ALL	73,846	273	55,095	$37,475,746.13

* These are the totals of Collisions, Derailments, Personal Casualties & Fires.

PERSONAL CASUALTIES
by Mode

INCIDENTS

Mode	On Vehicle	Enter/Exit*	Lifts	Station/Stop**	Escalators
LMB	5,240	3,292	49	221	1
MMB	3,524	2,594	82	396	1
SMB	1,236	1,187	37	205	0
AG	4	0	0	3	2
CR	362	1,289	0	778	2
DR	222	210	54	31	0
HR	1,451	968	0	7,347	1,170
LR	281	250	0	258	36
VP	2	3	0	0	0
ALL	12,322	9,793	222	9,239	1,212

DEATH

Mode	On Vehicle	Enter/Exit*	Lifts	Station/Stop**	Escalators
LMB	2	0	0	0	0
MMB	0	1	0	1	0
SMB	0	1	0	1	0
AG	0	0	0	0	0
CR	0	3	0	5	0
HR	3	2	0	11	0
LR	0	0	0	1	0
DR	0	0	0	0	0
VP	0	0	0	0	0
ALL	5	7	0	19	0

INJURIES

Mode	On Vehicle	Enter/Exit*	Lifts	Station/Stop**	Escalators
LMB	5,943	3,373	51	222	1
MMB	4,088	2,669	82	421	1
SMB	1,336	1,232	39	213	0
AG	4	0	0	3	2
CR	363	1,287	0	773	3
HR	1,456	970	0	7,353	1,176
LR	290	252	0	258	36
DR	233	214	56	32	0
VP	3	3	0	0	0
ALL	13,716	10,000	228	9,275	1,219

* Enter/Exit figures include the Lift figures.
** Station/Stop figures include the Escalator figures.

COLLISIONS
by Mode

INCIDENTS

Mode	Vehicle	Object	People*	Suicide
LMB	19,535	1,705	756	2
MMB	8,073	1,207	302	6
SMB	2,108	457	69	0
AG	0	1	0	0
CR	51	12	99	23
HR	447	68	135	65
LR	474	31	70	2
DR	520	146	11	0
VP	32	3	0	0
ALL	31,240	3,630	1,442	98

DEATHS

Mode	Vehicle	Object	People*	Suicide
LMB	26	0	28	0
MMB	21	0	11	2
SMB	5	0	2	0
AG	0	0	0	0
CR	3	0	63	23
HR	0	0	75	42
LR	2	0	6	2
DR	0	0	0	0
VP	0	0	0	0
ALL	57	0	185	69

INJURIES

Mode	Vehicle	Object	People*	Suicide
LMB	13,028	374	666	2
MMB	4,406	232	261	1
SMB	1,430	65	62	0
AG	0	0	0	0
CR	62	3	41	0
HR	126	14	161	29
LR	398	3	62	0
DR	215	13	9	0
VP	13	0	0	0
ALL	19,678	704	1,262	32

* People figures include Suicides.

FIRES

by Result and Mode

INCIDENTS

Mode	Vehicle	Station	R-O-W/Road
LMB	158	5	5
MMB	96	2	0
SMB	28	0	3
AG	0	0	0
CR	52	166	309
HR	522	2,243	2,303
LR	11	23	67
DR	8	0	1
VP	0	0	0
ALL	875	2,439	2,688

DEATHS

Mode	Vehicle	Station	R-O-W/Road
LMB	0	0	0
MMB	0	0	0
SMB	0	0	0
AG	0	0	0
CR	0	0	0
HR	0	0	0
LR	0	0	0
DR	0	0	0
VP	0	0	0
ALL	0	0	0

INJURIES

Mode	Vehicle	Station	R-O-W/Road
LMB	20	1	0
MMB	7	0	0
SMB	4	0	2
AG	0	0	0
CR	12	0	1
HR	75	94	196
LR	0	0	0
DR	2	0	1
VP	0	0	0
ALL	120	95	200

STATUS OF MASS TRANSIT ACCOUNT

Mr. CARR. Provide estimated receipts and outlays from the mass transit account of the highway trust fund for fiscal years 1993–1999.

[The information follows:]

25-Apr-94

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
STATUS OF MASS TRANSIT ACCOUNT
($ in thousands)

	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate
Cash balance brought forward start of year	9,788,159	10,617,371	10,126,070	9,942,406	10,443,668	10,266,706	9,997,407
Cash income during year, Government receipts:							
Motor fuel taxes	1,992,372	1,980,000	2,017,000	2,726,000	2,777,000	2,817,000	2,859,000
Interest on investments	742,502	690,100	556,900	522,000	535,200	526,200	512,400
Total annual income	2,734,874	2,670,100	2,573,900	3,248,000	3,312,200	3,343,200	3,371,400
Less: Outlays:							
Formula/Discretionary Grants	1,298,071	1,449,842	1,607,564	1,625,888	1,569,162	1,692,499	1,635,773
Trust Fund Share	617,591	1,711,559	1,150,000	1,120,850	1,920,000	1,920,000	1,920,000
Total outlays	1,915,662	3,161,401	2,757,564	2,746,738	3,489,162	3,612,499	3,555,773
Unexpended balance brought forward end of year	10,617,371	10,126,070	9,942,406	10,443,668	10,266,706	9,997,407	9,813,034

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DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
STATUS OF MASS TRANSIT ACCOUNT
($ in thousands)

	FY 1993 Actual	FY 1994 Estimate	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate
Cash balance brought forward start of year	9,798,159	10,617,371	10,126,070	9,942,406	10,443,668	10,266,706	9,997,407
Cash income during year, Government receipts:							
Motor fuel taxes	1,992,372	1,980,000	2,017,000	2,726,000	2,777,000	2,817,000	2,859,000
Interest on investments	742,502	690,100	556,900	522,000	535,200	526,200	512,400
Total annual income	2,734,874	2,670,100	2,573,900	3,248,000	3,312,200	3,343,200	3,371,400
Less: Outlays:							
Formula/Discretionary Grants	1,298,071	1,449,842	1,607,564	1,625,888	1,569,162	1,692,499	1,635,773
Trust Fund Share	617,591	1,711,559	1,150,000	1,120,850	1,920,000	1,920,000	1,920,000
Total outlays	1,915,662	3,161,401	2,757,564	2,746,738	3,489,162	3,612,499	3,555,773
Unexpended balance brought forward end of year	**10,617,371**	**10,126,070**	**9,942,406**	**10,443,668**	**10,266,706**	**9,997,407**	**9,813,034**

STAFFING

Mr. CARR. Update the staffing table appearing on page 998 of the 1994 hearing volume.

[The information follows:]

	Authorized FTE Fiscal Years 1994	 1995	On-Board 4/17/94 a/
Headquarters Offices:			
Administrator	5	5	4
Executive Secretariat	6	6	6
Public Affairs	7	6	7
Chief Counsel	23	23	23
Budget and Policy	63	63	62
Civil Rights	17	17	16
Administration	60	61	60
Technical Assistance and Safety	52	52	52
Grants Management	68	68	72
Interns/Pool	8	0	10
Total Headquarters	**309**	**301**	**312**
Regional Office:			
Region 1, Cambridge, MA	13	15	13
Region 2, New York, NY	20	23	20
Region 3, Philadelphia	19	20	19
Region 4, Atlanta, GA	20	22	20
Region 5, Chicago, IL	20	25	20
Region 6, Fort Worth, TX	14	18	14
Region 7, Kansas City, MO	11	15	11
Region 8, Denver, CO	8	12	8
Region 9, San Francisco, CA	22	24	22
Region 10, Seattle, WA	10	11	10
Total Regions	**157**	**185**	**157**
Subtotal (Ceiling)	**466**	**486**	**469**
Students (Non-Ceiling)	18	18	17
Subtotal FTA	**484**	**504**	**486**
OST Special Ceiling Allocation	2	0	2
Total	**486**	**504**	**488**

a/ Includes FTE for permanent full-time and part-time, temporary full-time and students. The numbers were taken prior to buyouts.

FORMULA GRANT ALLOCATIONS BY CITY

Mr. CARR. Provide the fiscal year 1994 grant allocations by city and the estimated allocation of the 1995 formula grant funds assumed in the 1995 budget.

[The information follows:]

The fiscal year 1994 section 9 formula apportionments and the proposed fiscal year 1995 apportionments based on the President's budget are contained in the table below. The fiscal year 1995 proposed amounts to urbanized areas are approximate and will change slightly when more recent Section 15 data is available later this fiscal year to be used in the formula calculation. Also, deobligated funds to be reapportioned in fiscal year 1995 will change the overall dollar amounts available slightly. The apportionments to the areas were not broken out into general and trust funds. Tables are also included showing the section 18 and section 16 apportionments by state.

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS OVER 1,000,000 IN POPULATION

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
Atlanta, GA	$30,083,986	$35,628,585
Baltimore, MD	26,054,703	30,856,759
Boston, MA	61,479,284	72,808,985
Chicago, IL-Northwestern IN	158,569,976	187,793,143
Cincinnati, OH-KY	11,504,677	13,561,944
Cleveland, OH	19,754,267	23,353,942
Dallas-Fort Worth, TX	28,050,854	33,221,553
Denver, CO	17,088,381	20,238,264
Detroit, MI	29,515,588	34,956,264
Ft Lauderdale-Hollywood-Pompano Bch, FL	15,698,048	18,591,320
Houston, TX	32,776,647	38,817,997
Kansas City, MO-KS	7,923,974	9,384,657
Los Angeles, CA	142,710,839	169,015,859
Miami-Hialeah, FL	28,469,483	33,716,907
Milwaukee, WI	14,098,369	16,697,171
Minneapolis-St. Paul, MN	19,247,771	22,795,539
New Orleans, LA	12,941,334	15,326,685
New York, NY-Northeastern NJ	498,647,056	590,539,691
Norfolk-Virginia Beach-Newport News, VA	8,533,816	10,106,898
Philadelphia, PA-NJ	92,632,339	109,703,525
Phoenix, AZ	17,783,269	21,061,092
Pittsburgh, PA	25,708,162	30,446,716
Portland-Vancouver, OR-WA	16,653,099	19,722,655
Riverside-San Bernardino, CA	7,708,242	9,129,152
Sacramento, CA	9,851,554	11,667,389
San Antonio, TX	14,613,666	17,307,407
San Diego, CA	29,225,654	34,612,444
San Francisco-Oakland, CA	91,452,351	108,306,307
San Jose, CA	21,807,960	25,827,382
San Juan, PR	10,589,419	12,541,293
Seattle, WA	37,694,803	44,642,069
St. Louis, MO-IL	16,683,616	19,758,938
Tampa-St. Petersburg-Clearwater, FL	11,770,161	13,939,824
Washington, DC-MD-VA	71,215,603	84,340,151
SUBTOTAL	$1,638,538,951	$1,940,418,507

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
Akron, OH	$4,648,856	$5,505,820
Albany-Schenectady-Troy, NY	5,749,382	6,809,180
Albuquerque, NM	4,493,659	5,322,014
Allentown-Bethlehem-Easton, PA-NJ	3,430,725	4,063,137
Anchorage, AK	1,901,495	2,252,012
Ann Arbor, MI	3,023,713	3,581,102
Augusta, GA-SC	1,588,000	1,880,727
Austin, TX	9,000,976	10,660,163
Bakersfield, CA	2,901,356	3,436,179
Baton Rouge, LA	2,266,549	2,684,357
Birmingham, AL	4,615,879	5,466,743
Bridgeport-Milford, CT	4,968,073	5,883,730
Buffalo-Niagara Falls, NY	10,293,906	12,191,379
Canton, OH	1,544,095	1,828,734
Charleston, SC	2,372,078	2,809,331
Charlotte, NC	4,575,705	5,419,156
Chattanooga, TN-GA	2,014,246	2,385,540
Colorado Springs, CO	2,956,631	3,501,640
Columbia, SC	2,277,530	2,697,364
Columbus, GA-AL	1,485,033	1,758,781
Columbus, OH	9,161,336	10,850,084
Corpus Christi, TX	2,664,562	3,155,742
Davenport-Rock Island-Moline, IA-IL	2,384,435	2,823,979
Dayton, OH	9,636,632	11,412,774
Daytona Beach, FL	1,715,052	2,031,197
Des Moines, IA	2,214,437	2,622,635
Durham, NC	2,032,878	2,407,613
El Paso, TX-NM	6,660,262	7,887,884
Fayetteville, NC	1,201,637	1,423,144
Flint, MI	2,808,906	3,326,690
Fort Myers-Cape Coral, FL	1,630,298	1,930,819
Fort Wayne, IN	1,719,617	2,036,612
Fresno, CA	4,173,753	4,943,132
Grand Rapids, MI	3,313,688	3,924,527
Greenville, SC	1,600,681	1,895,748
Harrisburg, PA	1,940,695	2,298,436
Hartford-Middletown, CT	7,403,742	8,768,438
Honolulu, HI	16,520,800	19,565,746
Indianapolis, IN	6,702,540	7,938,055
Jackson, MS	1,562,870	1,850,972
Jacksonville, FL	6,225,444	7,373,005
Knoxville, TN	1,980,258	2,345,296
Lansing-East Lansing, MI	2,612,867	3,094,515
Las Vegas, NV	5,325,834	6,307,535
Lawrence-Haverhill, MA-NH	2,858,674	3,385,545
Lexington-Fayette, KY	1,825,708	2,162,256

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
Little Rock-North Little Rock, AR.......	$2,071,075	$2,452,851
Lorain-Elyria, OH......................	1,160,675	1,374,633
Louisville, KY-IN......................	8,430,737	9,984,817
Madison, WI............................	3,986,739	4,721,601
McAllen-Edinburg-Mission, TX...........	1,082,405	1,281,936
Melbourne-Palm Bay, FL.................	2,049,943	2,427,827
Memphis, TN-AR-MS......................	7,531,966	8,920,359
Mobile, AL.............................	2,030,495	2,404,787
Modesto, CA............................	2,377,871	2,816,202
Montgomery, AL.........................	1,287,275	1,524,568
Nashville, TN..........................	4,531,306	5,366,578
New Haven-Meriden, CT..................	7,704,873	9,124,840
Ogden, UT..............................	2,345,304	2,777,625
Oklahoma City, OK......................	4,237,841	5,019,039
Omaha, NE-IA...........................	4,801,246	5,686,297
Orlando, FL............................	8,025,987	9,505,450
Oxnard-Ventura, CA.....................	3,215,027	3,807,680
Pensacola, FL..........................	1,826,904	2,163,671
Peoria, IL.............................	1,866,083	2,210,074
Providence-Pawtucket, RI-MA............	13,034,375	15,436,665
Provo-Orem, UT.........................	2,106,428	2,494,717
Raleigh, NC............................	2,185,369	2,588,204
Reno, NV...............................	3,087,638	3,656,799
Richmond, VA...........................	5,312,022	6,291,210
Rochester, NY..........................	6,258,806	7,412,529
Rockford, IL...........................	1,540,483	1,824,453
Salt Lake City, UT.....................	10,571,199	12,519,790
Sarasota-Bradenton, FL.................	2,898,361	3,432,643
Scranton-Wilkes-Barre, PA..............	2,877,754	3,408,233
Shreveport, LA.........................	2,096,930	2,483,467
South Bend-Mishawaka, IN-MI............	1,916,913	2,270,273
Spokane, WA............................	4,549,106	5,387,679
Springfield, MA-CT.....................	4,933,783	5,843,258
Stockton, CA...........................	2,641,498	3,128,429
Syracuse, NY...........................	4,433,613	5,250,889
Tacoma, WA.............................	7,123,650	8,436,758
Toledo, OH-MI..........................	4,847,915	5,741,566
Trenton, NJ-PA.........................	3,870,563	4,583,959
Tucson, AZ.............................	6,545,822	7,752,445
Tulsa, OK..............................	3,606,816	4,271,684

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO URBANIZED AREAS 200,000 TO 1,000,000 IN POPULATION

URBANIZED AREA	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
West Palm Bch-Boca Raton-Delray Bch, FL.	10,232,371	12,118,167
Wichita, KS............................	2,543,067	3,011,850
Wilmington, DE-NJ-MD-PA................	$4,577,511	$5,421,260
Worcester, MA-CT.......................	2,806,263	3,323,567
Youngstown-Warren, OH..................	1,995,069	2,362,839
	-------------	-----------
SUBTOTAL...............................	$373,142,570	$441,923,636

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

STATE	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
ALABAMA................................	$4,023,845	$4,765,256
ALASKA.................................	0	0
ARIZONA................................	638,913	756,635
ARKANSAS...............................	1,537,398	1,820,670
CALIFORNIA.............................	23,549,604	27,888,714
COLORADO...............................	4,339,243	5,138,766
CONNECTICUT............................	14,761,548	17,481,425
DELAWARE...............................	327,362	387,680
FLORIDA................................	9,977,296	11,815,656
GEORGIA................................	4,368,310	5,173,190
HAWAII.................................	1,160,989	1,374,906
IDAHO..................................	2,297,799	2,721,177
ILLINOIS...............................	10,525,078	12,464,367
INDIANA................................	6,138,682	7,269,760
IOWA...................................	3,341,820	3,957,565
KANSAS.................................	1,622,561	1,921,523
KENTUCKY...............................	1,278,842	1,514,475
LOUISIANA..............................	3,787,399	4,485,243
MAINE..................................	1,648,342	1,952,056
MARYLAND...............................	1,833,041	2,170,786
MASSACHUSETTS..........................	7,259,700	8,597,328
MICHIGAN...............................	6,195,129	7,336,608
MINNESOTA..............................	2,207,762	2,614,552
MISSISSIPPI............................	1,895,402	2,244,638
MISSOURI...............................	2,611,897	3,093,149
MONTANA................................	1,738,747	2,059,118

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 9 FORMULA APPORTIONMENTS AND
FISCAL YEAR 1995 FTA SECTION 9 BUDGET PROPOSAL

AMOUNTS APPORTIONED TO STATE GOVERNORS FOR URBANIZED AREAS 50,000 TO 200,000 IN POPULATION:

STATE	FY 1994 SECTION 9 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
NEBRASKA	1,932,956	2,289,112
NEVADA	0	0
NEW HAMPSHIRE	$2,347,297	$2,779,798
NEW JERSEY	1,778,508	2,106,206
NEW MEXICO	968,494	1,146,944
NEW YORK	5,373,525	6,363,619
NORTH CAROLINA	8,723,388	10,330,708
NORTH DAKOTA	1,694,947	2,007,247
OHIO	4,660,308	5,518,991
OKLAHOMA	725,352	859,002
OREGON	3,782,702	4,479,681
PENNSYLVANIA	9,888,648	11,710,672
PUERTO RICO	9,135,045	10,818,204
RHODE ISLAND	581,470	688,608
SOUTH CAROLINA	2,462,447	2,916,163
SOUTH DAKOTA	1,222,680	1,447,965
TENNESSEE	1,892,309	2,240,976
TEXAS	17,521,105	20,749,442
UTAH	350,192	414,716
VERMONT	614,483	727,704
VIRGINIA	$4,078,906	$4,830,462
WASHINGTON	3,854,641	4,564,874
WEST VIRGINIA	2,962,488	3,508,338
WISCONSIN	8,109,936	9,604,227
WYOMING	849,030	1,005,467
SUBTOTAL	$214,577,566	$254,114,369

OVER 1,000,000 IN POPULATION	$1,638,538,951	$1,940,418,507
200,000-1,000,000 IN POPULATION	373,142,570	441,923,636
50,000-200,000 IN POPULATION	214,577,566	254,114,369
TOTALS	$2,226,259,087	$2,636,456,512
SECTION 23 SET-ASIDE	11,132,764	13,248,525
NATIONAL TOTALS	$2,237,391,851	$2,649,705,037

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 18 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 BUDGET PROPOSAL

STATE	FY 1994 SECTION 18 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
ALABAMA	$3,095,492	$3,663,479
ALASKA	461,605	546,304
AMERICAN SAMOA	65,793	77,865
ARIZONA	1,419,630	1,680,115
ARKANSAS	2,474,717	2,928,799
CALIFORNIA	6,039,978	7,148,244
COLORADO	1,289,294	1,525,865
CONNECTICUT	1,169,511	1,384,103
DELAWARE	291,765	345,300
FLORIDA	3,882,765	4,595,207
GEORGIA	4,525,939	5,356,396
GUAM	187,298	221,664
HAWAII	507,968	601,174
IDAHO	1,024,810	1,212,850
ILLINOIS	4,152,296	4,914,194
INDIANA	4,011,024	4,747,000
IOWA	2,579,930	3,053,317
KANSAS	2,052,253	2,428,817
KENTUCKY	3,387,821	4,009,447
LOUISIANA	2,801,973	3,316,103
MAINE	1,352,061	1,600,149
MARYLAND	1,687,984	1,997,709
MASSACHUSETTS	1,809,006	2,140,937
MICHIGAN	4,899,096	5,798,024
MINNESOTA	2,819,147	3,336,428
MISSISSIPPI	2,751,122	3,255,920
MISSOURI	3,283,580	3,886,079
MONTANA	830,176	982,504
NEBRASKA	1,252,631	1,482,475
NEVADA	408,965	484,005
NEW HAMPSHIRE	1,082,832	1,281,520
NEW JERSEY	1,548,221	1,832,301
NEW MEXICO	1,217,136	1,440,466
NEW YORK	5,449,923	6,449,921
NORTH CAROLINA	5,789,428	6,851,721
NORTH DAKOTA	613,953	726,606
NORTHERN MARIANAS	60,971	72,158
OHIO	5,894,040	6,975,528
OKLAHOMA	2,519,641	2,981,966
OREGON	2,000,617	2,367,708
PENNSYLVANIA	6,574,863	7,781,274
PUERTO RICO	1,964,776	2,325,290
RHODE ISLAND	251,691	297,873
SOUTH CAROLINA	2,897,638	3,429,321
SOUTH DAKOTA	748,360	885,676
TENNESSEE	3,740,519	4,426,861
TEXAS	7,897,275	9,346,332
UTAH	567,298	671,391
VERMONT	669,099	791,871
VIRGIN ISLANDS	143,209	169,486
VIRGINIA	3,316,333	3,924,841
WASHINGTON	2,323,713	2,750,087
WEST VIRGINIA	1,975,825	2,338,366
WISCONSIN	3,413,995	4,040,423
WYOMING	477,486	565,099
TOTAL	$129,654,472	$153,444,559
SECTION 23 SET-ASIDE	647,939	771,078
NATIONAL TOTAL	$130,302,411	$154,215,637

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1994 FTA SECTION 16 FORMULA APPORTIONMENTS AND FISCAL YEAR 1995 BUDGET PROPOSAL

STATE	FY 1994 SECTION 16 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL	STATE	FY 1994 SECTION 16 APPORTIONMENTS	FY 1995 BUDGET PROPOSAL
ALABAMA..............	$1,021,761	$1,059,014	MONTANA..............	304,323	311,772
ALASKA...............	177,708	179,897	NEBRASKA.............	464,773	478,888
AMERICAN SAMOA.......	52,075	52,162	NEVADA...............	350,899	360,283
ARIZONA..............	903,234	935,563	NEW HAMPSHIRE........	332,605	341,229
ARKANSAS.............	719,942	744,657	NEW JERSEY...........	1,693,381	1,758,535
CALIFORNIA...........	5,447,020	5,668,116	NEW MEXICO...........	411,171	423,059
COLORADO.............	705,076	729,174	NEW YORK.............	3,897,514	4,054,232
CONNECTICUT..........	805,020	833,270	NORTH CAROLINA.......	1,497,296	1,554,304
DELAWARE.............	258,053	263,580	NORTH DAKOTA.........	262,033	267,726
DISTRICT OF COLUMBIA..	256,287	261,741	NORTHERN MARIANAS....	51,896	51,974
FLORIDA..............	3,682,148	3,829,920	OHIO.................	2,490,572	2,588,843
GEORGIA..............	1,318,978	1,368,578	OKLAHOMA.............	848,490	878,545
GUAM.................	131,903	132,189	OREGON...............	790,244	817,879
HAWAII...............	322,820	331,037	PENNSYLVANIA.........	2,982,094	3,100,784
IDAHO................	329,895	338,407	PUERTO RICO..........	750,682	776,674
ILLINOIS.............	2,387,318	2,481,299	RHODE ISLAND.........	364,877	374,842
INDIANA..............	1,262,068	1,309,304	SOUTH CAROLINA.......	820,829	849,735
IOWA.................	772,463	799,360	SOUTH DAKOTA.........	281,365	287,860
KANSAS...............	650,827	672,671	TENNESSEE............	1,202,832	1,247,607
KENTUCKY.............	980,050	1,015,571	TEXAS................	3,079,212	3,201,936
LOUISIANA............	983,156	1,018,805	UTAH.................	384,530	395,311
MAINE................	407,465	419,199	VERMONT..............	236,066	240,680
MARYLAND.............	987,711	1,023,549	VIRGIN ISLANDS.......	133,764	134,128
MASSACHUSETTS........	1,413,835	1,467,376	VIRGINIA.............	1,250,498	1,297,254
MICHIGAN.............	2,045,414	2,125,192	WASHINGTON...........	1,123,579	1,165,062
MINNESOTA............	1,001,354	1,037,760	WEST VIRGINIA........	605,189	625,137
MISSISSIPPI..........	700,006	723,893	WISCONSIN............	1,146,696	1,189,140
MISSOURI.............	1,279,592	1,327,557	WYOMING..............	203,793	207,066
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NATIONAL TOTAL.........				$58,964,382	$61,129,326

SECTION 9 FUNDING FOR AREAS WITHOUT TRANSIT SERVICE

Mr. CARR. Update the information appearing on pages 1015 and 1016 of the 1994 hearing volume concerning the use of section 9 funding for areas without transit service.

[The information follows:]

Shown below are urbanized areas without mass transit service which are eligible to receive Section 9 funding.

URBANIZED AREAS (UZA's) WITHOUT CONVENTIONAL MASS TRANSIT SERVICE
(BY STATE)

UZA's 50,000 - 200,000 IN POPULATION

STATE	UZA's	POPULATION	FY 1994 SECTION 9 FUNDING
ARIZONA	YUMA	70,955	$ 638,913
ARKANSAS	FORT SMITH	91,870	577,581
CALIFORNIA	LODI	55,590	600,865
	VACAVILLE	71,535	708,092
FLORIDA	FORT WALTON BEACH	112,522	770,338
	FORT PIERCE	126,342	794,678
	NAPLES	94,344	664,228
	OCALA	68,004	446,192
	PANAMA CITY	103,667	669,612
	PUNTA GORDA	67,033	437,886
	SPRING HILL	52,056	334,740
	STUART	80,069	584,067
	VERO BEACH	64,707	407,997
	WINTER HAVEN	86,427	631,942
GEORGIA	BRUNSWICK	50,066	298,529
	WARNER ROBINS	60,976	466,972
ILLINOIS	ROUND LAKE BEACH	112,640	756,743
KANSAS	LAWRENCE	65,755	614,431
LOUISIANA	HOUMA	65,879	388,760
	SLIDELL	54,084	391,083

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UZA's 50,000 - 200,000 IN POPULATION

STATE	UZA's	POPULATION	FY 1994 SECTION 9 FUNDING
MISSOURI	JOPLIN	60,208	$ 362,132
NORTH CAROLINA	BURLINGTON	74,053	488,447
	GOLDSBORO	60,230	371,422
	JACKSONVILLE	101,297	664,052
	KANNAPOLIS	78,177	479,387
NORTH DAKOTA	BISMARK - MANDAN	66,476	488,750
OKLAHOMA	LAWTON	92,634	712,627
PUERTO RICO	CAYEY	53,945	578,205
	HUMACAO	57,144	500,424
SOUTH CAROLINA	ROCK HILL	58,757	379,301
TEXAS	HARLINGEN - SAN BENITO	79,309	566,464
	KILLEEN	137,876	1,083,492
	LEWISVILLE	79,433	481,433
	LONGVIEW	76,429	473,670
	MIDLAND	91,999	591,058
	ODESSA	113,672	655,697
	TEXARKANA	42,310	281,841
	TEXAS CITY	128,211	749,186
	VICTORIA	55,122	406,121
WYOMING	CHEYENNE	61,890	459,559

UZA OVER 200,000 IN POPULATION

TEXAS	McALLEN	263,192	1,082,405

Mr. CARR. The information supplied last year on section 9 funding for areas without transit service raises questions. For instance, within the same State of Florida, Fort Walton Beach, with a population of 112,522, shows a 1993 section 9 funding generated amount of $538,449, while Fort Pierce, with a population of only 26,342, has a section 9 funding generated amount of $555,450. Why are the funding generated amounts so similar when the populations are so different? In the information supplied last year, what exactly does the "section 9 funding generated" column represent?

[The information follows:]

There were printing errors in the population for several of the urbanized areas, including Fort Walton Beach and Fort Pierce, that have been corrected this year. The populations for Fort Walton Beach and Fort Pierce are very similar at 112,522 and 126,342, respectively.

The section 9 funding column indicates the amount of section 9 formula apportionment to a governor that is attributed to the population and population density of the individual urbanized area. The governor has the authority to allocate all section 9 funds within the governor's apportionment.

FUNDING FLEXIBILITY

Mr. CARR. Update the funding flexibility information appearing on page 1017 of the 1994 hearing volume.

[The information follows:]

AUTHORIZATIONS

[In millions]

	1994	1995
Highway:		
Interstate Substitute Program	$240.0	$240.0
Interstate Maintenance Program	583.0	583.0
National Highway System	3,599.0	3,599.0
Surface Transportation Program	4,096.0	4,096.0
Congestion Mitigation and Air Quality Improvement Program	1,028.0	1,028.0
Bridge Program	1,105.0	1,105.0
Donor State Bonus Amount	514.0	514.0
Hold Harmless	606.6	606.6
90 Percent of Payment Adjustments	83.0	83.0
Additional Allocation—Wisconsin	47.8	47.8
Minimum Allocation	803.4	803.4
Total	12,705.8	12,705.8
Transit:		
Section 9 Formula Program (capital only for areas above 200,000 in population	[1] 1,349.7	[2] 1,887.2

[1] Fiscal year apportionments.

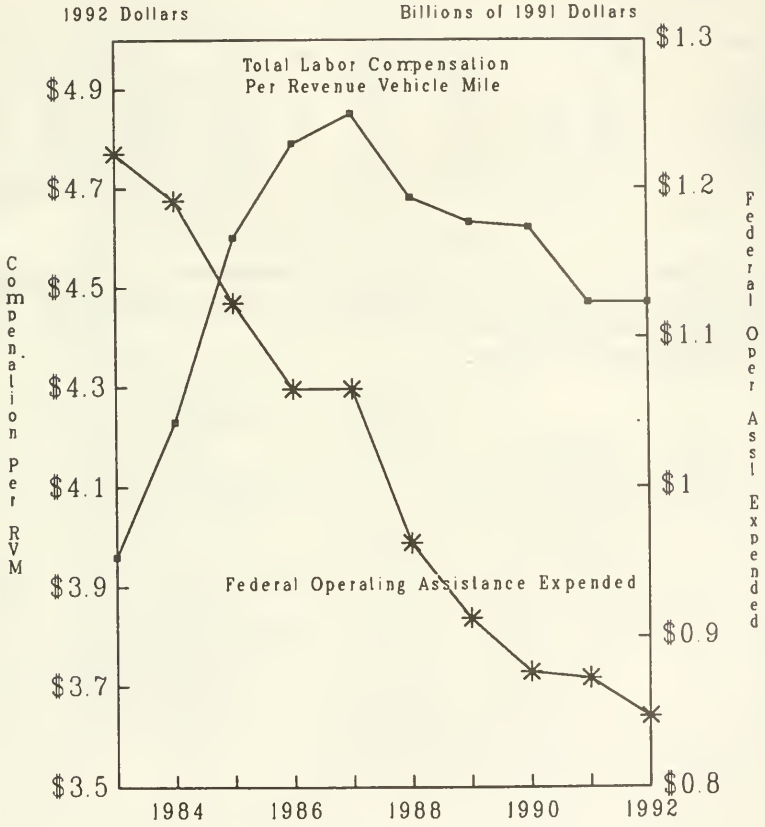
[2] Fiscal year 1995 budget proposal.

LABOR COMPENSATION AND OPERATING ASSISTANCE

Mr. CARR. Update the chart appearing on page 1018 of the 1994 hearing volume concerning average real labor compensation and real federal operating assistance expended.

[The information follows:]

Average Real Labor Compensation and Real Federal Operating Assistance Expended, 1983 to 1992



CAPITAL FUNDING DISTRIBUTION

Mr. CARR. Update the information appearing on page 1019 of the 1994 hearing volume concerning the distribution of capital funding.

[The information follows:]

FTA CAPITAL FUNDS—FISCAL YEAR 1986–FISCAL YEAR 1994, SECTIONS 3, 9, 9A, AND 5

[In millions of dollars]

Program	Fiscal years								
	1986	1987	1988	1989	1990	1991	1992	1993	1994 (est.)
Bus Capital	$935.5	$768.7	$820.0	$716.3	$760.9	$745.1	$827.4	$1,175.6	$1,417.1
Fixed Guideway	832.4	927.5	1,074.4	986.4	998.9	972.8	948.1	1,093.1	1,466.9
New Systems	600.4	282.1	538.2	372.1	603.7	330.0	329.1	809.5	1,216.3
Total	2,368.3	1,978.3	2,432.6	2,074.8	2,363.5	2,047.9	2,104.6	3,078.2	4,100.3

UNOBLIGATED NEW START FUNDING

Mr. CARR. Provide a list by city of unobligated new start funding by fiscal year similar to the information appearing on page 1022 of the 1994 hearing volume.

[The information follows:]

NEW START UNOBLIGATED BALANCES

BY YEAR AND CITY
(As of 04/22/94)

AREA	DESCRIPTION	FY 94	FY 93 REALLC.	FY 93	FY 92 & PRIOR YEARS	TOTAL
Los Angeles	Metrorail MOS-2/MOS-3	$168,725,000	$34,045,950	$0	$0	$202,770,950
New Jersey	Urban Core Project	62,031,250	0	14,460,000	0	76,491,250
Chicago	Central Area Circulator	23,909,325	8,500,000	21,090,625	19,191,002	72,690,952
San Francisco	SF Airport/BART-COLMA Ext./TASMAN LRT	27,988,500		18,652,500	6,865,587	53,506,587
New Jersey	Hawthorne Warwick Commuter Rail	6,649,750	0	4,466,250	34,203,000	45,319,000
Dallas	South Oak Cliff Light Rail	39,700,000	4,000,000	1,251	0	43,701,251
Pittsburgh	Pittsburgh Busway	36,424,750	5,000,000	0	0	41,424,750
Houston	Regional Better Bus Alternative	38,707,500	1,000,000	175,975	0	39,883,475
Portland-Boston	Commuter rail upgrade	9,428,750	0	25,308,750	0	34,737,500
Miami	Downtown Circulator Extentions	0	0	5,393,245	19,688,350	25,081,595
Baltimore	Extension to Central LRT line	0	0	24,812,500	0	24,812,500
Boston	South Boston Piers Transitway	9,925,000	10,000,000	0	0	19,925,000
Seattle	Commuter rail line to Tacoma	0	0	15,185,250	3,240,000	18,425,250
Orange County	Transitway System	15,383,750	0	0	0	15,383,750
Jacksonville	ASE Peoplemover Extension	0	0	9,925,000	5,120,000	15,045,000
Atlanta	North Line Extension for MARTA	0	0	11,045,616	0	11,045,616
Detroit	LRT Project	0	0	0	10,000,000	10,000,000
Los Angeles	LOSSAN 3 grade separation projects	0	0	0	10,000,000	10,000,000
Ft. Lauderdale	Tri-Rail project	9,925,000	0	0	0	9,925,000
Cleveland	Dual Hub Corridor	794,000	0	1,488,750	7,459,030	9,741,780
St. Louis	METROLINK	8,035,000	0	0	0	8,035,000
San Jose	Commuter rail from San Jose to Gilroy	0	0	0	8,000,000	8,000,000
Vallejo	North Bay Ferry	0	0	0	8,000,000	8,000,000
Chicago	Wisconsin Central Commuter Line	7,940,000	0	0	0	7,940,000
Maryland	MARC System Improvements	6,772,750	0	0	0	6,772,750
New Jersey	Lakewood-Freehold Commuter Rail	2,977,500	0	2,977,500	0	5,955,000
Orlando	Downtown Trolley OSCAR	2,977,500	0	1,985,000	510,000	5,472,500
Salt Lake City	I-15 Light Rail ROW	2,977,500	0	1,953,530	0	4,931,030
San Diego	Mid Coast Extension Preliminary Exten.	0	0	1,687,250	2,296,000	3,983,250
Milwaukee	Milwaukee East-West Corridor	0	3,000,000	0	0	3,000,000
Minnesota	Twin Cities Central Corridor	2,779,000	0	0	0	2,779,000
Miami	Urban Initiative	0	0	2,154,718	0	2,154,718
New Orleans	New Orleans Canal Street	1,573,000	0	0	0	1,573,000
Cincinnati	Commuter Rail - Major Investment Study	1,339,875	0	0	0	1,339,875
Philadelphia	Cross County Transit	0	0	694,750	510,000	1,204,750
Staten Island	Staten Island Midtown Ferry	0	0	0	1,000,000	1,000,000
Akron	Commuter Rail-Advanced Land Aquisition	992,500	0	0	0	992,500
Sacramento	Sacramento LTR Extension	992,500	0	0	0	992,500
Kansas City	PE for Phase I LRT Project	0	0	0	931,520	931,520
Memphis	Memphis Regional Rail	496,250	0	0	0	496,250
New Jersey	South Jersey Regional Rail	496,250	0	0	0	496,250
	TOTALS	$489,942,200	$65,545,950	$163,458,460	$137,014,489	$855,961,099

AVERAGE AGE OF BUS FLEET

Mr. CARR. Update all the information appearing on page 1025 of the 1994 hearing volume concerning average age of bus fleet.

[The information follows:]

LARGE MOTOR BUSES

YEAR:	LARGE MOTOR BUSES
1980	8.8
1981	9.4
1982	9.4
1983	9.3
1984	8.1
1985	9.0
1986	8.3
1987	8.2
1988	8.2
1989	8.4
1990	8.2
1991	7.9
1992	8.2

AGE OF BUS FLEET-NUMBER OF BUSES

BUS MODE	1987	1988
16 PLUS YEARS	4,676	4,700
11 TO 15 YEARS	11,905	11,413
6 TO 10 YEARS	16,974	18,354
0 TO 5 YEARS	22,598	21,971
TOTAL	56,153	56,438

For 1990 and subsequent years, the Section 15 data on age of bus fleet is being presented in six separate age categories rather than the previous four groups. The data for 1990, 1991 and 1992 follow:

	1990	1991	1992
25 PLUS YEARS	217	301	510
21 TO 25 YEARS	1,146	1,142	910
16 TO 20 YEARS	3,524	3,179	3,014
12 TO 15 YEARS	9,524	5,773	7,308
6 TO 11 YEARS	19,782	21,513	20,624
5 YEARS OR LESS	20,260	18,380	16,230
TOTAL	54,453	50,288	48,596

BUS CAPITAL GRANTS

Mr. CARR. Update the bus capital funding data appearing on page 1026 of last year's hearing volume.

[The information follows:]

FISCAL YEAR 1993 OBLIGATIONS OF DISCRETIONARY AND FORMULA FUNDS FOR BUS CAPITAL

[In millions of dollars]

Bus category	Section 3	Section 9	Total
Bus purchase	$187.1	$532.1	$719.2
Bus facilities	27.4	77.7	105.1
Bus other	78.8	272.5	351.3
Bus Total	[1] 293.3	882.3	1,175.6

[1] Does not include $156.1 million made available in fiscal year 1993 for the Houston Regional Bus Program from section 3 new start funds.

BUS OBLIGATIONS

Mr. CARR. Update the bus obligation information on page 1026 of the 1994 hearing volume.

[The information follows:]

During fiscal year 1993, FTA obligated approximately $405 million for 1,989 standard size buses and 99 articulated buses under section 9. Under the section 3 bus program, approximately $114 million was obligated for 528 standard size buses and 46 articulated buses.

FTA financed the rehabilitation of 105 full size buses at an approximate federal share of $6.8 million. It is expected that these vehicles will have an average life extension of at least five years.

BUS PROCUREMENT GRANTS

Mr. CARR. Update the bus procurement grants information appearing on page 1027 of last year's hearing volume.

[The information follows:]

The following Section 3 bus grants were awarded in Fiscal Year 1993:

City/Grantee	Description	Amount
Nassau County	23 AFI Repl. buses	$ 7,729,004
New Jersey, NJTransit	106 buses/fleet expan.	22,500,000
Maryland, MTA	87 buses/16 vans/fleet repl.	21,899,796
Raleigh, CITY	12 vans	311,000
North Carolina, NCDOT	5 (35ft.)/18 (30ft.) buses/5 vans and 2 support vehicles	7,417,274
Miami, MDTA	46 articulated repl. buses	11,644,433
Chattanooga, CARTA	22 battery powered buses	14,395,135
Michigan, MDOT	20 (40ft.)/88 (30ft.) buses and 12 vans	8,357,161
Indiana, INDOT	14 (35ft.)/18 (30ft.) Repl. buses and 6 vans	4,204,687
Wisconsin, STATE	44 (40ft.)/29 (35ft.) repl. buses/ 2 vehicles and 3 vans	10,071,940
Cincinnati, SORTA	33 paratranist vehicles	626,500
Columbus, COTA	6 (40 ft.)/18(35ft.) repl. buses	4,067,898
Columbus, Ohio DOT	14 small buses/27 vans	589,594
Dayton, MVRTA	30 repl. trolley vehicles	12,203,694
Minnesota, MDOT	7 (40ft.)/7 (30ft.) repl. buses	1,589,646
Brazos Valley, BVCAA	56 (30ft.)/10(<30ft.) repl. buses/ 20 trolley buses	12,615,336
El Paso, SUN METRO	25 buses/4 CNG vehicles	5,647,200
Santa Fe, CITY	2 (30ft.) buses/1 van for expan.	325,432
Santa Fe, CITY	8 (30ft.) buses/2 vehicles	961,920
Tucson, CITY	12 (40ft.)/5 (30ft.) buses	3,254,316
Denver, RTD	66 (35ft.) buses	11,284,824
Eagle County	6 (35ft.) buses	1,070,976
Salt Lake City, UTA	30 (40ft.) repl. buses	5,168,620
Lake Tahoe, TTD	7 standard expan. buses	1,200,000
Sacramento, COUNTY	6 small buses	1,061,175
San Francisco, SFPUC	32 trolley buses	14,357,287
Palm Springs, SUNLINE	9 (40ft.) repl. buses	2,175,000
Kauai, STATE	7 (30ft.) repl. buses	2,000,000
Eugene, LTD	1 (40ft.) expan./25 (40ft.) repl. buses	4,517,760
Medford, RVTD	11 CNG repl. buses/2 vans	2,033,949
	TOTAL:	***$195,281,557***

CAPITAL OBLIGATIONS FOR OLD RAIL CITIES

Mr. CARR. Update the information appearing on page 1029 of the 1994 hearing volume concerning obligations for certain cities.

[The information follows:]

Fixed Guideway Modernization Obligations for Old Rail Cities
(In Millions of Dollars)

	1989	1990	1991	1992	1993	1994* (est.)	1995** (est.)
Boston							
Section 3	16.6	71.4	32.0	0	0	140.4	52.5
Section 9	28.2	27.6	32.4	35.1	37.8	40.8	N/A
Total	44.8	99.0	64.4	35.1	37.8	181.2	52.5
Chicago (Includes NW Indiana)							
Section 3	82.4	51.6	111.3	87.0	94.9	107.7	106.4
Section 9	39.0	44.0	72.3	63.4	29.7	65.0	N/A
Total	121.4	95.6	183.6	150.4	124.6	172.7	106.4
Cleveland							
Section 3	0	19.6	6.8	9.9	10.3	10.8	10.8
Section 9	0	0.3	0	8.8	0	0	N/A
Total	0	19.9	6.8	18.7	10.3	10.8	10.8
New Jersey							
Section 3	96.6	40.2	40.0	0	100.6	79.1	66.9
Section 9	34.6	41.6	54.8	34.3	50.6	51.3	N/A
Total	131.2	81.8	94.8	34.3	151.2	130.4	66.9
New York (Includes SW Connecticut)							
Section 3	291.8	202.5	182.7	238.0	253.6	311.4	296.8
Section 9	204.9	202.4	205.7	266.8	233.0	236.2	N/A
Total	496.7	404.9	388.4	504.8	486.6	547.6	296.8
Philadelphia (Includes So. New Jersey)							
Section 3	109.8	53.6	77.8	53.0	72.1	82.4	76.1
Section 9	34.0	40.7	41.8	18.9	16.4	11.8	N/A
Total	143.8	94.3	119.6	71.9	88.5	94.2	76.1
Pittsburgh							
Section 3	10.0	4.0	0	5.0	18.8	30.1	15.3
Section 9	13.4	0.5	0.3	0.1	0	0	N/A
Total	23.4	4.5	0.3	5.1	18.8	30.1	15.3
San Francisco							
Section 3	46.3	21.0	44.0	30.7	66.6	63.8	49.7
Section 9	44.4	17.9	11.6	2.5	9.8	39.4	N/A
Total	90.7	38.9	55.6	33.2	76.4	103.2	49.7
All Old Rail Cities							
Section 3	665.3	466.5	530.5	423.6	616.9	825.7	674.5
Section 9	483.3	493.1	525.8	429.9	377.3	444.5	0
Total	1,148.6	959.6	1,056.3	853.5	994.2	1,270.2	674.5

*Estimated Section 3 obligations in FY 1994 are based on the Annual Apportionments and Earmarks.

**FY 1995 estimates are based on the proposed budget for Fixed Guideway Modernization.

RAIL RIDERSHIP STATISTICS

Mr. CARR. Provide the most recent rail ridership statistics, updating the information appearing on page 1031 of the 1994 hearing volume.

[The information follows:]

Our most recent data on rail ridership is from Section 15 for 1991, Numbers of Unlinked Trips in Thousands:

RAIL RIDERSHIP STATISTICS

Automated Guideway:

Miami Metromover	32.0
Seattle Monorail	23.4
Jacksonville	2.9

Cable Car:

San Francisco	85.8

Commuter Rail:

Long Island Railroad	898.3
MetroNorth Commuter Railroad	578.3
New Jersey Transit	403.1
Chicago Commuter Rail Board	293.9
Philadelphia-SEPTA	219.5
Chicago & Northwestern	113.5
Boston-MBTA (Amtrak)	199.4
Chicago-Burlington North	113.5
Staten Island Rapid Transit	60.0
Caltrain-San Francisco	60.5
Maryland MARC	44.8
Northern Indiana Commuter Tr Distr	25.8
Tri-County Commuter Rail Authority	22.6
Caltrans-Los Angeles	1.9

Inclined Plane:

Pittsburgh-Port Authority Transit	15.0
Chattanooga Area RTA	40.0

Rapid Rail:

New York City TA	13,254.0
Washington, DC-WMATA	1,882.0
Boston-MBTA	1,806.7
Chicago-CTA	1,373.7
Philadelphia-SEPTA	798.1
San Francisco-BART	772.4
Atlanta-MARTA	640.8
New York-PATH	601.4

Miami-Dade County, TA	137.0
Baltimore-MTA	120.0
Pittsburgh-Port Authority Transit	115.5
Cleveland RTA	55.6
Light Rail:	
Philadelphia-SEPTA	415.5
San Francisco-MUNI	390.3
Boston-MBTA	249.3
San Diego Trolley	171.6
Pittsburgh-Port Authority Transit	87.2
Buffalo-Niagara Frontier Tr Auth	85.7
New Orleans RTA	69.1
Portland-Tri County MTD	77.0
Sacramento RTD	67.8
Cleveland RTA	50.4
New Jersey Transit	30.5
Santa Clara County TD	61.3
Seattle Metro	1.8
Galveston Island Transit	1.2

BUS FUNDING FOR RURAL AREAS

Mr. CARR. Update the table appearing on page 1034 of the 1994 hearing volume concerning bus funding for rural areas.

[The information follows:]

SECTION 3 BUS FUNDS RURAL OBLIGATIONS

[Dollars in millions]

Fiscal year	Section 3 bus appropriation	Section 3 rural obligation	Percentage
1993	$327.5	$35.8	10.9
1992	276.4	17.3	6.3
1991	218.9	33.3	15.2
1990	131.4	14.7	11.2
1989	143.3	12.3	8.6

METROPOLITAN PLANNING ORGANIZATIONS FUNDING

Mr. CARR. Provide a state-by-state breakdown of 1994 and 1995 proposed funding for metropolitan planning organizations, similar to the information appearing on page 1035 of the 1994 hearing volume.

[The information follows:]

Funding to States for Distribution to
Metropolitan Planning Organizations
Under Section 8 of the Federal Transit Act

State	FY 1991 SEC8 UZA MARK (HOLD HARMLESS LEVEL)	FY 1994 FINAL ALLOCATION BASED ON $41,512,500 TOTAL FOR MPOS STATEWIDE	FY 1995 FINAL ALLOCATION BASED ON $41,512,500 TOTAL FOR MPOS STATEWIDE
Alabama	$316,205	$362,551	$362,551
Alaska	$20,400	$166,050	$166,050
Arizona	$455,350	$656,708	$656,708
Arkansas	$107,008	$166,050	$166,050
California	$5,436,550	$7,040,939	$7,040,939
Colorado	$493,700	$539,088	$539,086
Connecticut	$329,151	$481,810	$481,810
Delaware	$44,258	$166,050	$166,050
District/Col	$195,605	$223,237	$223,237
Florida	$1,487,700	$2,246,371	$2,246,371
Georgia	$619,444	$797,286	$797,286
Hawaii	$108,100	$166,050	$166,050
Idaho	$40,000	$166,050	$166,050
Illinois	$2,249,380	$2,421,760	$2,421,760
Indiana	$564,428	$588,336	$588,336
Iowa	$151,607	$185,833	$185,833
Kansas	$168,333	$214,302	$214,302
Kentucky	$240,330	$257,554	$257,554
Louisiana	$438,000	$445,572	$445,572
Maine	$62,306	$166,050	$166,050
Maryland	$920,920	$962,817	$962,817
Massachusetts	$1,083,999	$1,173,464	$1,173,464
Michigan	$1,470,219	$1,513,381	$1,513,361
Minnesota	$572,904	$613,980	$613,980
Mississippi	$92,900	$166,050	$166,050
Missouri	$715,407	$715,407	$715,407
Montana	$60,000	$166,050	$166,050
Nebraska	$83,780	$166,050	$166,050
Nevada	$72,500	$179,735	$179,735
New Hampshire	$60,493	$166,050	$166,050
New Jersey	$1,842,311	$2,053,185	$2,053,185
New Mexico	$89,900	$166,050	$166,050
New York	$3,802,264	$4,170,695	$4,170,695
North Carolina	$332,300	$492,926	$492,926
North Dakota	$50,489	$166,050	$166,050
Ohio	$1,371,909	$1,429,284	$1,429,284
Oklahoma	$211,645	$266,393	$266,393
Oregon	$280,251	$300,178	$300,178
Pennsylvania	$1,909,473	$1,909,473	$1,909,473
Rhode Island	$165,658	$166,050	$166,050
South Carolina	$187,240	$279,838	$279,838
South Dakota	$40,412	$166,050	$166,050
Tennessee	$363,497	$436,648	$436,648
Texas	$2,279,399	$2,808,686	$2,808,686
Utah	$162,200	$258,656	$258,656
Vermont	$20,000	$166,050	$166,050
Virginia	$649,423	$921,617	$921,617
Washington	$602,839	$736,459	$736,459
West Virginia	$72,011	$166,050	$166,050
Wisconsin	$557,792	$557,792	$557,792
Wyoming	$40,000	$166,050	$166,050
Puerto Rico	$348,000	$447,689	$447,689
	$34,040,000	$41,512,500	$41,512,500

TRANSIT PLANNING FUNDS

Mr. CARR. Update the table appearing on page 1037 of the 1994 hearing volume concerning major recipients of transit planning funding.

[The information follows:]

SECTION 8 PLANNING PROGRAM, TOTAL FUNDS RECEIVED 20 LARGEST UZA'S

[All amounts in dollars]

	1988	1989	1990	1991	1992	1993
New York	4,590,112	4,618,868	4,036,732	5,438,236	4,106,313	4,740,038
Los Angeles	3,522,538	3,458,800	2,864,800	4,211,425	3,179,196	3,313,450
Chicago	2,548,000	2,448,100	2,486,020	1,561,900	2,276,274	1,892,212
Philadelphia	1,710,244	1,600,500	1,613,700	2,190,900	1,120,550	1,537,962
San Francisco	1,455,200	1,343,900	1,552,300	2,271,200	1,015,694	1,388,162
Detroit	1,410,000	1,320,000	1,055,000	1,180,000	1,180,000	1,180,000
Washington, DC	2,126,945	1,003,500	1,080,000	1,146,700	1,028,757	885,152
Miami	479,000	488,900	400,200	528,800	806,656	511,236
Boston	1,412,117	1,024,500	1,049,500	1,327,200	904,092	798,398
Houston	1,190,000	1,080,000	784,000	800,000	800,220	679,741
Cleveland	535,000	450,000	607,440	640,000	550,800	504,974
Seattle	469,000	596,000	435,300	852,000	546,277	451,779
Atlanta	713,051	686,900	860,151	513,800	568,254	466,833
St. Louis	643,900	583,900	491,200	548,500	558,232	544,040
Denver	880,500	752,500	682,200	632,300	395,716	363,636
Baltimore	675,000	645,000	462,900	1,252,847	561,273	496,800
Dallas	1,450,000	870,000	1,380,000	800,000	867,222	736,045
St. Paul	582,000	2,020,000	475,000	550,000	562,384	506,800
Pittsburgh	574,680	569,800	479,400	1,195,200	558,050	535,730
Milwaukee	553,000	500,000	400,000	435,000	351,700	378,833
San Juan	371,300	199,300	291,600	366,700	371,325	196,000

Note.—Not necessarily in order.

TECHNOLOGY DEVELOPMENT PROJECTS

Mr. CARR. Provide information on ongoing technology development projects, including location, purpose, cost and scheduled completion dates.

[The information follows:]

The following are ongoing technology development projects [Note: all cost estimates represent Federal share only.]

Advanced Technology Transit Bus (Phase I)
Los Angeles, CA
Purpose: to develop an Advanced Technology Transit Bus. Phase I comprises preliminary design and manufacturing studies of a low emissions, low floor, light weight advanced desigh bus for the future. The bus will meet ADA, Clean Air and other requirements at the turn of the century that current technologies cannot fulfill.
$3,999,689
Completion: Mid-1995

Advanced Technology Transit Bus (Phase II)
Los Angeles, CA
Purpose: The second phase of the Advanced Technology Transit Bus will complete the design and fabrication of components such as gen-set engine, electrical drive and other major/minor parts of the bus. Testbed test will be conducted for these components and a mock-up will be prepared for the engineering of such a bus.
$6,000,000
Completion: Early 1997

Next Generation Bus
Houston, TX
Purpose: to develop and demonstrate a near term new technology transit bus that may be used as a new industry standard. The new design bus will have a low floor, extra-wide doors for easy ingress and egress, be lighter in weight, and will use corrosion resistant materials. It will utilize common parts with trucks to increase the market share.
$4,488,000
Completion: Mid-1995

Bus On-Board and Wayside Information Displays
Houston, TX
Purpose: to demonstrate the benefits and practicality of the use of wayside electronic signs at bus stops to inform passengers of the route number and expected time of arrival of all buses that are enroute and expected to arrive at the stop within the next hour.
$262,500
Completion: Early 1994

Computerized Brake Dynamometer
New York, NY
Purpose: to test and evaluate a computerized brake diagnostic dynamometer for determining bus braking capacity. The dynamometer will be incorporated as part of a transit agency's preventive maintenance program to detect brake safety problems.
$150,000
Completion: Mid-1995

Advanced Transportation Systems and Electric Vehicle Program
[Four Projects]

CALSTART
Los Angeles, CA
Purpose: to define and develop the necessary infrastructure support systems, and foster full-scale manufacturing of electric transit buses.
$4.0 million
Completion 12/94

Chesapeake Consortium
Baltimore, MD
Purpose: to develop an advanced, economically viable power train for incorporation into electric vehicles.
$4.0 million
Completion: 12/94

New York State Consortium
New York, NY
Purpose: to develop and demonstrate a low-floor, full-sized transit bus with a hybrid electric propulsion system.
$2.3 million
Completion: 12/95

Advanced Lead Acid Battery Consortium
Research Triangle Park, NC
Purpose: Develop, demonstrate, and evaluate rapid recharge technology for lead acid batteries.
$1.2 million
Completion: 1/95

Fuel Cell/Battery Bus Program
Washington, DC
Purpose: Joint DOE/DOT program to develop and demonstrate the feasibility of a fuel cell/battery propulsion system for an urban transit bus.
$7 million
Completion: December 1997

Domestic Fuel Cell Transit Bus Development Program
Washington, DC
Purpose: This program will lead to the development of full-sized fuel cell transit buses and prepare U.S. manufacturer and

suppliers to be ready for the commercial production of these buses.
$4.88 million
Completion: December 1997

Battery Bus Evaluation
Santa Barbara, CA
Purpose: to evaluate a variety of advanced batteries as a propulsion system for transit buses.
$150,000
Completion: 1994-1995

Alternative Fuels Initiative Program
Nationwide Program
Purpose: 61 grants have been awarded for over 1100 alternative fuel powered transit buses.
Federal grants total over $185 million
Completion: Various

Advanced Fare Collection Project
Washington, DC
Purpose: to develop, test and evaluate advanced fare technology systems with emphasis on barrier-free bus-rail system transfer.
$997,899
Completion: Late 1994

Universal Fare Pass System
Oakland, CA
Purpose: to assist all San Francisco Bay Area transit agencies in developing and implementing a single multi-modal fare pass system.
$4.3 million
Completion: Early 1995

Automated Wayside Passenger Information System
Newark, NJ
Purpose: design a real-time information system for commuter rail system passengers to provide information of train delays or other system status.
$300,000
Completion: Mid-1994

Advanced Automatic Train Control System Development
Oakland, CA
Purpose: to design and test an advanced automatic train control system using advanced technology which will enable the Bay Area Rapid Transit District to operate trains at closer spacing with safety to increase system capacity.
$600,000
Completion: Winter 1994

Rapid Rail Vehicle Locational Monitoring
Baltimore, MD
Purpose: test and evaluate a real-time train locational system with an ancillary system that records mileage and schedules programmed maintenance.
$902,999
Completion: Late 1994

Signal System Simulator
New York, NY
Purpose: develop a simulator to analyze train operations under differing operating scenarios (schedules, etc.), to prepare requirements for major signal system modernization. The overall objective is to increase system capacity and enhance safety.
$400,000
Completion: Spring 1995

Superconducting Magnetic Energy Storage (SMES) for Rail Transit
Oakland, CA
Purpose: analyze feasibility and test (if feasible) a SMES device to relieve a low voltage problem in critical areas where system electric capacity is constrained.
$350,000
Completion: Mid-1994 (Phase I)

Innovative Maintenance Technology
Washington, DC
Purpose: to find and and evaluate innovative technologies from non-transit industries, and/or technologies from outside the U.S. to improve transit maintenance efficiency.
$50,000
Completion: 5/94

Automated Emergency Response System
Burlington, MA
Purpose: to develop and demonstrate a stand-alone computerized system to provide bus control operations with real-time instructions on actions to take under different emergencies. The software developed for this project is generic, and may be used by any transit agency.
$205,000
Completion: Early 1994

Bellevue Smart Traveler
Bellevue, WA
Purpose: This project examines ways in which mobile communications, such as cellular phones, and information kiosks can be used to make ridesharing (carpooling and vanpooling), more attractive. A set of information-based services for ridematching was developed in Phase I in cooperation with the mobile telecommunications industry in an effort to increase the use of HOV facilities. The initial focus advised private auto drivers of rideshare possibilities using mobile communications. A second

phase is operationally testing a prototype computer-based, interactive commuter information center in an office building in downtown Bellevue. The center provides computerized transit information, rideshare matching, and a method to schedule occasional carpool or vanpool trips. In addition to cellular telephone, the technological applications include voice mail, computer-based ridematching, "smart" ID cards, traffic monitoring computers, and electronic maps.
$144,000
Completion: Mid 1995

California Smart Traveler
California (State-wide)
Purpose: This major project is comprised of several components which include (a) Los Angeles Smart Traveler, (b) Los Angeles Smart Card, (c) Orange County Smart Intermodal System, (d) Santa Clara County Smart Vehicle, and (e) Sacramento Real-Time Ridesharing. The Los Angeles Smart Traveler will provide pre-trip, real-time planning information including transit system status and expected arrival times. The Los Angeles Smart Card will test the use of smart cards for express transit service as well as for parking and other services at employment sites. The Orange County Smart Intermodal System will operationally test an integrated transit and traffic management system and a real-time information system that will include special event information. The Santa Clara County Smart Vehicle will use Global Positioning System (GPS) technology for automatic vehicle location (AVL) operation of a paratransit system in conjunction with bus, light-rail, and train operation. The Sacramento Real-Time Ridesharing component will use a geographic information system (GIS) to provide real-time ridesharing information and will include driver incentives.
$1,575,000
Completion Mid 1996

Houston Smart Commuter
Houston, TX
Purpose: This project seeks to develop and evaluate a real-time traffic and transit information system. Four tasks are underway: (1) assess the market potential to increase bus, vanpool, and carpool use by providing traffic information, bus choices, and carpool options to travelers at home and work; (2) evaluate available technologies and identify those most feasible and cost-effective; (3) examine various ways of gathering and distributing transit and traffic information, to include the identification of roles and costs for the agencies involved; and (4) identify the project's administrative requirements and projected costs.
$590,000
Completion Mid 1995

Rogue Valley Mobility Management
Rogue Valley, OR
Purpose: This project will demonstrate the Mobility Manager concept to integrate transportation users, providers, and funding sources. Advanced electronic technology will be used to record financial transactions and will include magnetic-strip farecards. The initial phase will focus on providing transportation service to the elderly and disabled who are unable to use fixed route transit. Using existing hardware and readily developed software, the second phase will demonstrate the mobility manager concept for frequent transit riders in urban and rural environments.
$460,000
Completion: Late 1995

Winston-Salem Mobility Management
Winston-Salem, NC
Purpose: This project will define and identify system needs and operationally test and evaluate a mobility management system for the City of Winston-Salem. It will include automated scheduling and demand responsive, shared-ride transit for the young, elderly, and disabled who are unable to use fixed-route transit (Phase I). The project will extend the transportation service to fixed-route transit, ridesharing and taxis used by the general public (Phase II). Integration with the Winston-Salem traffic management program will be accomplished. Technologies being investigated also include smart cards, GPS, and automatic vehicle location.
$220,000 Completion Late 1995

Denver Smart Vehicle
Denver, CO
Purpose: The RTD is installing an Automatic Vehicle Location (AVL) system, as part of an upgraded communications system, to provide bus location information to transit dispatchers to increase efficiency, ridership, and passenger safety. Location information is supplied by the Global Positioning System (GPS), which uses a series of navigation satellites. The location of each bus is determined by a GPS receiver on the buses and is transmitted to a central dispatch center. Off-schedule buses are identified so corrective action can be taken to reroute buses when needed
$120,000
Completion: Late 1995

Milwaukee Smart Vehicle
Milwaukee, WI
Purpose: This project will support the efforts of Milwaukee County to conduct data collection and evaluation of its Automatic Vehicle Location (AVL) and bus fleet management system. The project will enable Milwaukee County to participate in the Volpe National Transportation Systems Center (VNTSC) Operational Test Evaluation effort. Milwaukee County will conduct data collection and evaluation in coordination with the VNTSC National Evaluation

Plan. The AVL system is designed to track buses and ensure accurate schedule performance, increase overall operating efficiency, and assist in fleet management activities. As new technologies are operationally tested around the country, it is critical that standard evaluations are conducted to ensure consistency and compatibility of evaluation data.
$50,000
Completion: Late 1995

Ann Arbor Smart Intermodal System
Ann Arbor, MI
Purpose: This project will report the Ann Arbor Transportation Authority's conduct of an operation test of the Smart Bus concept. Included are an on-board bus communication and navigation system, a central control system, and a "Smart Card" fare collection the on-board system monitors actual performance in regard to route, location, speed, and status of mechanical systems. It will allow control of on-board electronics, such as the fare collection system, designation sign and enunciator. The on-board system will also enable buses to interact with traffic signal preemption devices and to communicate with the central control system. The central control system will then integrate the data from the bus fleet for coordinated supervision, and will also provide real-time transit information to the public. The "Smart Card" fare system will provide a dual farecard/parking pass to encourage auto drivers to ride transit by providing them an easy cost-saving method for fare payment.
$480,000
Completion: Late 1995

Chicago Smart Intermodal System
Chicago, IL
Purpose: This cooperative agreement supports data collection and evaluation of an operational test of a Bus Service Management System (BSMS) by the Chicago Transit Authority (CTA). The CTA is in the process of creating a BSMS which includes procuring an Automatic Vehicle Location (AVL) system, a computer-assisted dispatch and control system, real-time passenger information signs, and a traffic signal preemption system. The initial demonstration phase is being funded locally by the Regional Transportation Authority (RTA). In addition to supporting data collection and evaluation, this cooperative agreement is to document the implementation of the BSMS, and to analyze the BSMS human factors element to assess the effects of introducing video terminals and information systems into the transit dispatching environment.
$490,000
Completion: late 1995

Chattanooga Smart Card
Chattanooga, TN
Purpose: This project will assist the Chattanooga Area Regional Transportation Authority (CARTA) in its ongoing "Downtown Parking and Circulator" effort. This project will support the planning and development of a smart card fare and parking system to be used to increase the appeal of transit and park-and-ride lots in the downtown area. The project will examine using smart cards for both the payment of parking fees and for transit fares on the downtown circulator. Presently, CARTA provides a downtown shuttle system that runs from the north end of downtown to the south end. CARTA is constructing "auto intercepts," or park and ride-lots located at key entry points into the downtown area. These intercepts will relieve congestion and act as boarding areas for public transportation . The Chattanooga Smart Card project will tie into this developing effort.
$75,000
Completion: Mid 1995

Advanced Fare Payment Media II - Phase II
Diamond Bar, CA
Purpose: This project will develop an operational test of a computerized system for integrating various advanced fare media technologies and processing systems. Tests will demonstration onboard electronic transit fare and data collection, and on-site travel support services such as congestion pricing, parking management and data collection. The project will investigate systems applications fare reciprocity among service providers and real-time operational funds allocations and transfers. Evaluations of the tests will be conducted by an independent university team.
$480,000
Completion: Late 1994

Delaware County Ridetracking
Delaware County, PA
Purpose: This project will develop and evaluate an automated identification and billing system (AIBS) for paratransit service. The AIBS will automate existing processes using advanced technology for the identification of passengers, the accounting and billing data collected on each passenger trip, the reporting required for coordination with various transportation suppliers and internal performance monitoring. Elimination of manual processes, including eligibility verification and reconciliation of trip information for billing purposes, will result in system efficiency and cost saving.
$200,000
Completion Mid 1995

Detroit Transportation Center Transit Information

Detroit, MI

Purpose: This is a joint FTA/FHWA project to provide real-time traffic condition information to dispatch centers of public transit agencies in the Detroit area. MDOT's Detroit Freeway Operations Center collects traffic information on 32 miles of freeway through a buried inductive loop system. The information is then graphically displayed on computer monitors by color coding individual freeway segment (link) speeds. This project will demonstrate the ability to provide this information to public and private transit operators inexpensively, and will then monitor performance changes and evaluate the results.

$50,000

Completion: Late 1994

Twin Cities' Travlink and Genesis Evaluation

Minneapolis/St Paul, MN

Purpose: This project will support data collection and evaluation for the IVHS Operational Test "Travlink" and "Genesis". Travlink is an automatic vehicle location and information system providing real-time transit and traffic data to travelers at home, work, and at transit terminals. Travlink will test the integration of various advanced technologies into a comprehensive system for increasing transit ridership by providing better information to the traveler. Genesis will test the effectiveness of a personalized real-time, route-specific information system for highways and public transportation. The data collection and evaluation effort supported by this cooperative agreement will be in conjunction with the Volpe National Transportation Systems Center's National Evaluation Plan, ensuring consistency with other operational test evaluations. This effort will also disseminate evaluation data to other transportation agencies considering similar systems.

$400,000

Completion: Late 1994

Transit Network Route Decision Aid

Ann Arbor, MI

Purpose: This project is to develop specifications for designing, implementing, and evaluating a computerized information system to aid a telephone operator in rapidly identifying useful itineraries for passengers in a mass transit system. Specifically, it would develop a procedure for constructing a decision aid; investigate algorithms and discuss how to extend or specialize them; and develop a plan for decision aid evaluation.

$50,000

Completion: Late 1994

Intermodal Guideway Public Transit
Miami & Tampa, FL
Purpose: to study the factors that influence successful implementation of intermodal guideway public transit systems.
$3.0 million
Completion: Fall 1996

Suspended Light Rail Transit Technology Pilot Project
[3 Projects:]
Montgomery County, MD - $333,333
Oakland, CA - 333,330
Milwaukee County, WI - $333,333
Purpose: The first phase of a 3 phase project is for the three grantees to refine their proposals, i.e., describe proposed system technology, refine patronage projections, refine capital and operating costs, etc.
Completion: September 1993 (Phase I)

Maglev System Feasibility Study
Pittsburgh, PA
Purpose: study feasibility of a Magnetic Levitation demonstration line from downtown Pittsburgh to the Pittsburgh International Airport.
$660,000
Completion: Mid-1994

Inertial Navigation Technology Transfer
Pittsburgh, PA
Purpose: to determine the safety, economic, and environmental benefits of deploying inertial navigation tracking and control systems in rural and urban transit environments.
$1,997,899
Completion: Early 1996

NEW START PROJECT INSTRUMENTS

Mr. CARR. Provide information concerning outstanding new start project instruments similar to the data on pages 1049–1050 of the 1994 hearing volume.

[The information follows:]

OUTSTANDING NEW START PROJECT INSTRUMENTS FULL FUNDING GRANT AGREEMENT AS OF APRIL 21, 1994

[Dollars in millions]

UZA	Funding source	Project description	Federal amount	Outstanding balance
Washington	WMATA appropriation	Franconia, Glenmont, Mid City, Branch Avenue.	$1,291	$843
Dallas	Section 3	South Oak Cliff	160	77
Los Angeles	Section 3	MOS–2	667	69
Los Angeles	Section 3	MOS–3	1,230	[1] 1,170
Portland	Section 3	Westside LRT	516	341
New York	Section 3	Queens Connector	306	215
San Francisco	Section 3 and 9	Colma/Airport/Tasman	955	755

[1] Includes advance construction authority amount of $535 million.

INTERNATIONAL MASS TRANSIT ACTIVITIES

Mr. COLEMAN. I was disappointed that the initial summit between Secretary Peña and his counterparts from Mexico and Canada was cancelled because of a politically violent act in Mexico. I am interested whether your office had any issues pending before the summit? Can you describe any international mass transit activities your office is involved in between our countries? Is there any sharing of technology, for example, in the area of alternative fuels?

My community of El Paso, the largest city along the southern border with Mexico, is facing a unique problem concerning mass transit. International bus traffic has effectively been discontinued because of Mexican laws, negatively impacting hundreds of commuters, students, and tourists. I would like to work with your office to see whether this situation can be rectified.

[The information follows:]

Although FTA has no issues pending before the North American Transportation Summit, we expect to be participating in several areas, including cross border planning and innovative financing. In the past we have provided technical assistance to the Federal District of Mexico in the areas of travel demand forecasting and transportation planning and we have shared, with the Mexicans and Canadians, the results of our research and development efforts including alternative fuels research and demonstrations. In the future, we expect to offer more assistance to our neighbors within the North American Free Trade Area.

We agree that the discontinuation of the El Paso-Cuidad Juarez regular bus service has created a particularly difficult situation for the citizens of El Paso. Because of the international implications of the cross border bus situation, FTA has deferred to the Office of the Secretary to resolve the issue. Secretary Peña is aware of the issue and he will personally inquire about this matter when he meets bilaterally with his Mexican counterpart at the rescheduled North American Transportation Summit on April 29, 1994.

ALTERNATIVE FUEL VEHICLES

Mr. COLEMAN. I am very interested in FTA's initiatives with respect to alternative fuel vehicles. Please describe FTA's activities in this regard. Of your budget request for the alternative fuels bus program, how much of the funding do you anticipate will go toward the purchase of natural gas buses? Are you seeing a trend in fuel preference among the requests for alternative fuel buses? If so, what is that preference? If your administration received funding to carry out its authorization for providing alternative fuel grants to urban and school bus fleets under section 410 of the Energy Policy Act, at what funding level would you be able to carry out this program?

[The information follows:]

FTA funds the purchase of transit buses through the Section 3 discretionary and Section 9 formula grant programs. There is no specific budget request for an alternative fuel program. Transit authorities can choose what type of bus they will purchase with their Section 9 funds; depending on the specific grant, Section 3 funds may specify a particular fuel. Currently, approximately 25–30 percent of the new transit buses being purchased are powered by alternative fuels. At this time, compressed natural gas (CNG) is the fuel being chosen most often.

FTA is not requesting separate funding under Section 410 of the Energy Policy Act since alternative fuel buses are already eligible for funding under the transit program.

THURSDAY, APRIL 14, 1994.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (WMATA)

WITNESSES

GORDON J. LINTON, ADMINISTRATOR, FEDERAL TRANSIT ADMINISTRATION

ROBERT H. McMANUS, ASSOCIATE ADMINISTRATOR FOR GRANTS MANAGEMENT, FEDERAL TRANSIT ADMINISTRATION

LOUISE F. STOLL, ASSISTANT SECRETARY FOR BUDGET AND PROGRAMS, OFFICE OF THE SECRETARY, DEPARTMENT OF TRANSPORTATION

LAWRENCE G. REUTER, GENERAL MANAGER, WMATA

PETER BENJAMIN, ASSISTANT GENERAL MANAGER FOR FINANCE AND COMPTROLLER, WMATA

WALTER A. MERGELSBERG, DEPUTY ASSISTANT GENERAL MANAGER FOR CONSTRUCTION, WMATA

WORLD CUP SOCCER

Mr. CARR. I want to welcome to our Committee the new general manager of WMATA, Mr. Lawrence Reuter, and, once again, Mr. Gordon Linton, the Federal Transit Administrator.

Before starting with WMATA, however, I want to apologize for any inconvenience that occured yesterday. We had a series of votes late yesterday. I had intended for the hearing to last just a little while longer, but in the interest of time I think everything worked out all right. I was sorry I didn't get a chance to communicate with you, and I hope I did not disrupt your schedule.

We had talked earlier in your testimony, Mr. Linton, about the Atlanta Olympics, and what I wanted to do was talk a little bit also about the United States response to transportation needs of the World Cup soccer matches to be held in this country.

Now, this is larger than anything we have ever had before. I believe there are some nine venues for these particular games.

Mr. LINTON. That is right.

Mr. CARR. I am not real sure in my own mind what the time frame of all of this is. I know that every one of the nine communities, including my own, is making special claims on the federal budget for extra transportation and security funds. Of course, security is not your problem, that is up to another subcommittee, but we have urged in the past there be sufficient funding for special events like this.

I know that you have been working with officials of the various venues. What are your plans? What is the status of the applications for transportation assistance of the various venues? What is that total?

Mr. LINTON. Sure.

WORLD CUP APPLICATIONS

Mr. CARR. What are your recommendations in terms of dealing with these applications? Help us out here. I think you may have to begin moving on some of these expeditiously.

Mr. LINTON. Thank you very much, Mr. Chairman, and sorry that we were not able to close out the hearings yesterday as you had intended, but I understand the demands and calls that are on Congressmen, so we understand what you were up against yesterday.

Let me just say that we are involved with the World Cup. I convened a meeting—I can't recall which month, but very early in the process, to try to elicit the support of those general managers of the properties from around the country that were located in the cities where the World Cup events were going to take place.

We had the representatives from the World Cup Committee at that meeting, and basically tried to lay out for everybody in the room what the issues were and also what our funding capabilities were. We indicated at that time our commitment to try to expedite grants to the World Cup properties and cities as they requested them. But we also tried to make them aware that there are some inherent problems in our grant making process that we could not change, such as incorporation in State and Metropolitan Transporation Improvement Programs (STIPs and TIPs). There are normal grant processes that we do not have the authority to waive, and any grant that they seek will have to go through that process.

We also indicated to them that there are other processes, such as our Section 13(c) labor protection clause, which are outside the purview of the FTA and in the purview of the Department of Labor. We also tried to make them aware that we had funding restrictions in our act that we had to comply with, so any grants we made had to be within the funding capacities of our act.

We could not, for instance, approve a grant for security. We could not, for instance, approve a grant for operating when it was, in fact, capital dollars that we had available. We tried to make it very clear that we had to operate within those restrictions.

One of the problems that we have had, even after trying to make that clear, is that several of the applications that have come through have requested items that we cannot fund under section 3; that are not allowable under the confines of our act. They were operational. We cannot fund operational expenses out of section 3. That is pretty clear and we made that clear to everyone at the beginning of the process.

What we have tried to do since that time is negotiate with all the properties to try to get them to have an application that met their needs but that were fundable within the guidelines of our statute. And we are doing that.

We have about six applications that we are working with. I have also given letters of no prejudice to the various communities, so if they wanted to expedite their construction so that they could begin that before they got the actual federal funds, they would be able to do that as long as what they were requesting, once again, was allowable under our statute.

We have also tried to work with the Department of Labor and others to try to expedite considerations of section 13(c) and others so that that process could be as quick as possible.

Mr. CARR. Could you address any remarks to the specific application of the southeast Michigan properties?

Mr. LINTON. Let me see if my staff, if we have any specific information on the grants here. I am not sure if we have that with us. I don't think we have with us—we can get some information to you.

Mr. CARR. Maybe we could have a visit soon on that. I have a personal responsibility, as you do, to see to it that everything is taken care of throughout the country, but I owe a special responsibility to my own state, so I want to make sure that my own state's application gets every consideration. And I would like to know where the problems are, if there are problems, because I am going to know about them anyway sooner or later. Ultimately, someone is going to walk in my door because of my chairmanship here and say, what can we do about this particular problem? So I would rather find out about any problems earlier than later.

Mr. LINTON. Sure, Mr. Chairman. We can provide you with information on all the applications, including the one in Detroit and where it is and also as to what may have been applied for before and what we are trying to work with now.

Mr. CARR. Okay. Thank you. That is what I wanted to deal with yesterday that I did not get to do.

[The information follows:]

FTA has been working with the transit authorities and local governments in each of the nine venue cities and with the World Cup USA staff on transit needs for the games. The status of grants for the nine cities is:

Orlando and Palo Alto chose not to apply.

Washington, D.C. and Pasadena had only highway or operating assistance needs which are not eligible for capital funds.

We are expediting grants for Boston, New Jersey, Chicago and Dallas. FTA has already issued preliminary letters to Boston and Chicago allowing them to incur costs prior to grant award.

We are working with two transit authorities in the Detroit area to help define their proposals to lease buses and vans. They are the Detroit Department of Transportation and the Suburban Mobility Authority for Regional Transportation (SMART).

We received eight applications for funds for the World Cup Games. Applications were received from the Massachusetts Bay Transportation Authority, New Jersey Transit Corporation, LYNX (Orlando), City of Washington, D.C., SMART (Detroit), City of Chicago Department of Transportation, Dallas Area Rapid Transit, and the City of Pasadena. Grants, if ready, are being awarded. Letters of no prejudice are being approved so that grantees can begin work before the grants are awarded. Earlier, Detroit was trying to make a decision between leasing and chartering buses. Detroit is now trying to make arrangements to lease buses, and the Department of Labor is processing the 13(c) labor protection clause in the application.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Mr. CARR. Now we will turn to WMATA and welcome Mr. Larry Reuter who just assumed the new position last month. Because this is your first appearance before the Committee we are going to place your biographical information and your complete statement in the record and we would ask if you would summarize your statement. Then we would like to hear any comments that Mr. Linton has to make on the Metro program when you have concluded.

WMATA STATEMENT

Mr. REUTER. All right. Thank you, Mr. Chair. I appreciate the opportunity to testify before you today. You are correct, I have been on the job all of four weeks now, so I am a well experienced Washingtonian and Metro user.

First, though, I would like to introduce the staff at the table with me. Sitting next to me is Peter Benjamin, Assistant General Manager of Finance, and Walt Mergelsberg, who is the Acting Assistant General Manager of Design and Construction, and actually behind us, is Debbie Lipman, Director of Government Relations.

I want to thank you again for the opportunity to appear before you and also for the support this Committee showed in the past for Metro. I hope that support will continue here in the future.

I have submitted our written testimony for the record. I would like to give you a brief summary of it.

We are here to talk about appropriations for our fast track program, but I thought it would help to summarize quickly what WMATA is doing overall. We have three budgets at WMATA, our operating budget, our capital improvement budget, which we call our CIP, and the fast track budget. I wanted to summarize those quickly for you.

OPERATING BUDGET

This year the WMATA operating budget is continuing to be financially constrained. In the proposed FY 1995 operating budget the local subsidy from area jurisdictions is down 1 percent from what it was last year. If you look at the FY 1995 head count at WMATA, we will be 500 employees less than our high point in 1991. During the same time we have increased rail service by over 28 percent.

We have accomplished this by good fiscal controls, reducing overhead, eliminating redundant positions, and strict budgetary controls and monitoring expenses. WMATA is working hard to control its expenses. I think you have seen that in the last few budgets, as well as this one. We are also working hard to improve WMATA revenue.

WMATA has a very good record on the revenue side. In 1995, the WMATA system-wide cost recovery ratio is going to be about 55 percent, with rail cost recovery going up to 73 percent, and bus cost recovery growing to 35 percent. That compares with an industry average of 40 percent in fare box recovery. We are accomplishing this through enhanced service. We are adding subway service and initiating aggressive marketing programs and techniques.

We are marketing special convention packages to attract more tourists to use the system. We are also marketing different types of rail passes on the system. We are not only working hard to control our costs; we are improving our revenue situation as well. We are projecting a 1 percent increase in the ridership on WMATA this year.

There is one concern that we have in the operating budget. The fact that the mandates that are put on us by the Federal Government are creating burdens as we deal with those in these limited fiscal times. When I talk about mandates, I am talking really about items like clean air, drug testing, and ADA requirements.

As you know, those mandates were placed on us without any extra resources being provided. These costs are going to have a considerable impact on our budget. We are beginning to incorporate these items into our budget, but our ways of dealing with them are really very limited. Without any additional revenue, we have to deal through either fare increases or service reductions.

We have estimated that to date we have spent about $14 million on ADA capital expenses, exclusive of an item we are going to talk about in a minute, the platform edge requirements. The $14 million is associated with other capital improvements required for stations and buses. In addition, it is going to also require about $10 million in operating assistance for paratransit when we are in full compliance in 1997.

At the same time, you are considering a proposal from the administration to lower federal operating assistance to transit. So the costs of mandates are increasing and resources are declining. It is a concern for us. We have been able to deal with it so far.

CAPITAL IMPROVEMENT PROGRAM

I did want to quickly mention our capital improvement budget program, known as our CIP. This program covers rehabilitation of existing equipment, both railcars and buses, and rebuilding infrastructure and facilities to keep them in a state of good repair.

Many people look at WMATA and think it is a brand new system and, therefore, we do not need to do rehabilitation. And by industry standards, Metro is a relatively new system; but we are approaching 20 years old. One of the things that the prior WMATA management and board recognized is the need to develop a capital improvement program. Metro has adopted a CIP and put it in place. That program is now fully funded through the year 2000. It funds the normal replacement of buses, railcars, overhaul of those cars, and rehabilitation of facilities.

I say it is fully funded. It is fully funded based upon the assumptions of Section 3, Section 9, and flexible funding under ISTEA continuing. We are dependent on continued federal capital assistance, as well as local jurisdictions continuing to contribute to that program.

FEDERAL PLATFORM EDGE REQUIREMENT

But as the plan stands now, in our estimates, it is fully funded except for one item. That one item was mentioned earlier by Congressman Wolf. The item is the platform edge modification that we are required to install in order to comply with ADA.

We have not yet incorporated a platform edge modification into our capital improvement budget because we have not yet come to agreement with the Department of Transportation on this issue. One of the first things I did in the first month on the job was look at what I saw as the more pressing critical issues facing WMATA. The platform edge issue was certainly one of them. Last week I sent a letter to Secretary Peña where I laid out some proposals to hopefully resolve this issue.

There has been an ongoing, lengthy dialogue between the Department of Transportation, FTA, and WMATA over how WMATA is going to deal with the platform edge situation. I might add I have a very serious concern about this. I also have a handicapped son who is mobility impaired. This is a personal issue for me. My son has tripped in stations with truncated domes. It is an issue very present on my mind.

One of our concerns with truncated domes is the tripping hazard for the mobility impaired. WMATA is a relatively new system with one of the most unique platform edge systems in transit history. The 18-inch granite edge plus the lighting system helps the hearing impaired, as well as those that are low vision and not totally blind. We have asked DOT to grant us an exemption based on the uniqueness of the WMATA system. We have also offered an alternate proposal, which we think will provide the proper level of protection for the visually impaired. I think you heard Congressman Wolf mention it earlier. We have asked for the ability to install 8 inches of a flame cut or textured granite paver.

We have a sample here at the table so you can see what it looks like. We have asked DOT to consider allowing us to put 8 inches of textured granite behind our existing 18-inch granite strip, so that we would have a total of 26 inches of granite, exceeding the required 24 inches. The textured granite provides a difference in the surface contour, as well as a color contrast with the redpaver tiles in the system.

I just sent that letter over to the Secretary last week. We have not heard back, but are hopeful we are going to get a positive response. As soon as we get a response and can work out a compliance plan, we will take the actions necessary to put that item into our capital improvement program and expeditiously come into compliance with ADA. We are asking that this issue receive immediate attention.

FAST TRACK PROGRAM

The last budget I wanted to summarize quickly is the real reason we are here today. That is our rail construction program, or what is known as "fast track." This subcommittee has been briefed extensively in the past about the fast track program, so I will not go into a great level of detail. This plan is designed to accelerate the completion of the last 13-and-a-half miles of the 103 mile Metrorail system.

The fast track plan is designed to complete the system as quickly as possible, saving five years and $600 million. The reason we are here today asking for a $212 million appropriation this year is so that we can stay on our construction schedule.

The good news I have is that this program is working and it is working well. We are on schedule; we are within budget. We recently awarded one of our major contracts for the Inner Green Line. The contract award is about $10 million under our estimate. We are taking advantage of very good bidding situations. We think that the budget and schedule are ambitious, but achievable.

This program is funded 62-and-a-half percent by the federal government and 37-and-a-half percent by the local governments. There is considerable local contribution in this program.

There are two key components of this plan that you need to keep in mind. One component is the continued and timely financial support of the federal government, as well as the local governments, so that we can continue to build this plan on the schedule and achieve the savings we anticipate.

The second is that since we are spending and obligating money quicker than the federal government or the local governments are providing it, the program is designed to use a $600 million letter of credit.

If you look in my written testimony on Chart 3, you will notice that in fiscal 1995 we will have obligated almost a quarter of a billion dollars more than the appropriations given to us by both the federal and local sources. We are only able to do this because of the $600 million letter of credit.

The good news I have to tell you is that as of March 31, the second week I was on the job, Peter Benjamin and I, signed the letter of credit. It is now in place. We are ready to use it. The way our construction team is obligating funds we will use the line of credit this summer, even with the $212 million we are requesting.

Again, the good news is the program is working, on schedule and within budget. We believe we will be able to complete this program as promised, five years ahead of schedule, saving over $600 million during this process. We are asking for your support today for our request for $212 million.

That concludes my testimony. I have tried to make it as brief as I can, but we are available to answer any questions you may have.

[The prepared statement and biography of Lawrence Reuter follows:]

STATEMENT BY

LAWRENCE G. REUTER

GENERAL MANAGER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

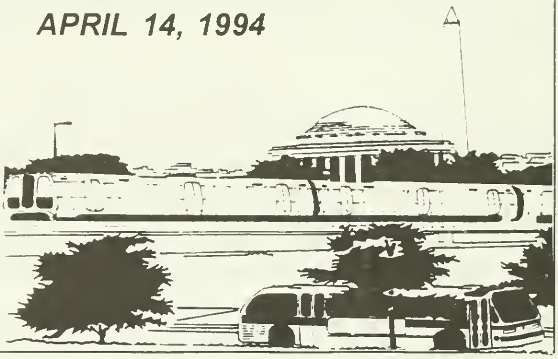
BEFORE THE

SUBCOMMITTEE ON TRANSPORTATION

COMMITTEE ON APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

APRIL 14, 1994



GOOD MORNING MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE. I AM PLEASED TO HAVE THE OPPORTUNITY TO PRESENT THE AUTHORITY'S FY1995 RAIL CONSTRUCTION APPROPRIATION REQUEST AND TO PROVIDE YOU WITH AN OVERVIEW OF THE AUTHORITY'S PROGRESS THIS YEAR.

IN THE FIVE WEEKS THAT I HAVE SPENT IN MY NEW POSITION AS GENERAL MANAGER I HAVE BEEN IMPRESSED WITH THE SENSE OF MISSION THAT PERVADES METRO. MY PREDECESSOR, DAVID GUNN, WORKED DILIGENTLY TO MAINTAIN SERVICE QUALITY, PRESERVE EXISTING CAPITAL ASSETS AND COMPLETE THE 103-MILE SYSTEM AS SOON AS POSSIBLE. HE PUT INTO PLACE STRICT COST CONTROL MEASURES AND INSTILLED ACCOUNTABILITY IN THE METRO STAFF. I INTEND TO BUILD ON THAT LEGACY.

FAST TRACK CONSTRUCTION PROGRAM

IN PREVIOUS YEARS YOU HAVE RECEIVED EXTENSIVE BRIEFINGS ON THE ACCELERATED CONSTRUCTION PROGRAM METRO HAS UNDERTAKEN TO COMPLETE THE 103-MILE METRORAIL SYSTEM. I AM PLEASED TO REPORT THAT THIS AMBITIOUS PROGRAM -- KNOWN AS FAST TRACK -- IS ON SCHEDULE AND WITHIN BUDGET. THE AUTHORITY'S FY1995 APPROPRIATIONS REQUEST IS FOR $212 MILLION TO MAINTAIN THE MOMENTUM OF THE FAST TRACK PROGRAM.

I WANT TO TAKE A MOMENT TO REVIEW THE FAST TRACK PROGRAM OBJECTIVES SO THAT YOU CAN GAIN A SENSE OF HOW WE ARE DOING IN ACHIEVING OUR GOALS. THE FAST TRACK PROGRAM WAS DESIGNED TO COMPLETE THE REMAINING 13.5 MILES OF THE 103 MILE METRORAIL SYSTEM WITHIN THE $1.3 BILLION FEDERAL AUTHORIZATION, PLUS LOCAL MATCH. THE 1990 METRO REAUTHORIZATION CONTINUES THE FEDERAL

COMMITMENT TO THE COMPLETION OF THE METRORAIL SYSTEM, SETTING THE FEDERAL SHARE AT 62.5 PERCENT AND THE LOCAL SHARE AT 37.5 PERCENT. THE AUTHORIZATION ENVISIONS FEDERAL APPROPRIATIONS WILL BE PROVIDED AT A STABLE LEVEL OF $200 MILLION ANNUALLY. THE APPROPRIATIONS NEEDED TO SUSTAIN THE FAST TRACK PROGRAM ARE DEPICTED IN CHART 1.

FAST TRACK SAVES $600 MILLION OVER THE LIFE OF THE PROJECT IN INFLATION, INSURANCE AND OTHER OVERHEAD EXPENSES. CONSTRUCTION IS GREATLY ACCELERATED USING INNOVATIVE CONSTRUCTION TECHNIQUES, SHAVING 5 YEARS OFF THE PREVIOUSLY EXPECTED COMPLETION DATE.

THE FAST TRACK PROGRAM PLACES A STRONG EMPHASIS ON BUDGET AND SCHEDULE. THE BUDGET (IN MATCHED DOLLARS) AND REVENUE OPERATING DATES FOR THE FOUR LINE SEGMENTS COVERED BY FAST TRACK ARE SHOWN IN CHART 2.

CHART 1

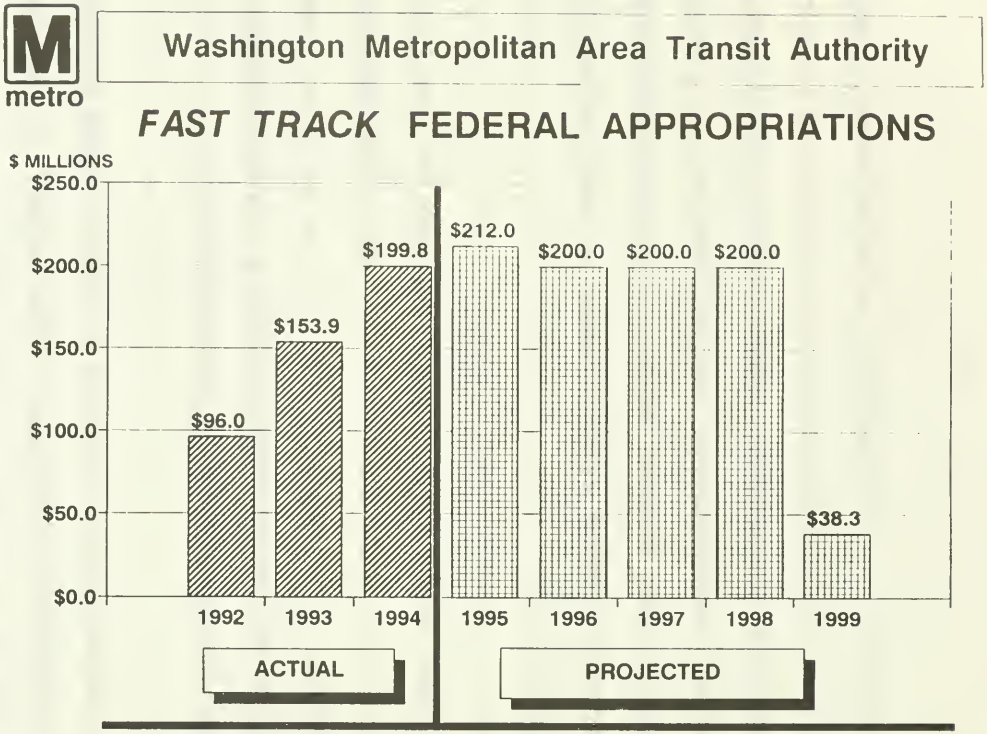

metro
Washington Metropolitan Area Transit Authority
FAST TRACK FEDERAL APPROPRIATIONS
$ MILLIONS
$250.0
$200.0
$150.0
$100.0
$50.0
$0.0
$96.0
$153.9
$199.8
$212.0
$200.0
$200.0
$200.0
$38.3
1992
1993
1994
1995
1996
1997
1998
1999
ACTUAL
PROJECTED

CHART 2

Washington Metropolitan Area Transit Authority

CONSTRUCTION PROGRAM *FAST TRACK*

		PROJECT COST	OPENING DATE
BLUE:	FRANCONIA SPRINGFIELD	$ 230.1	Mid 1997
RED:	GLENMONT	290.9	Mid 1998
GREEN:	FORT TOTTEN	642.8	Late 1999
GREEN:	BRANCH AVENUE	900.8	Early 2001
Operations Control Center Expansion		5.0	Late 1994

	TOTAL COST	$ 2,069.6	

$ Millions

STATUS OF FAST TRACK

I WOULD LIKE TO PROVIDE YOU WITH A BRIEF STATUS REPORT ON THE MAJOR ACHIEVEMENTS OF THE FAST TRACK PROGRAM THIS YEAR. IN ORDER TO FULFILL THE REQUIREMENTS OF THE INTERSTATE COMPACT GOVERNING THE AUTHORITY, FUNDS MUST BE AVAILABLE BEFORE ANY CONTRACTS ARE AWARDED. WE ARE FAST APPROACHING THE POINT AT WHICH OUR PROGRAMMED OBLIGATIONS FOR THE FAST TRACK SCHEDULE WILL EXCEED AVAILABLE APPROPRIATIONS. THUS, WE HAVE UNDERTAKEN AN INNOVATIVE PRIVATE SECTOR FINANCING PLAN TO ENABLE US TO BORROW CAPITAL IN ANTICIPATION OF FUTURE APPROPRIATIONS.

DURING THE PAST YEAR WE HAVE ACHIEVED SEVERAL MILESTONES IN OUR RAIL CONSTRUCTION PROGRAM, INCLUDING:

- OPENING THE GREEN LINE FROM FORT TOTTEN IN THE DISTRICT TO GREENBELT, MARYLAND. THIS NEW SERVICE ADDED 4 STATIONS AND 7.9 MILES OF SERVICE. THE METRORAIL SYSTEM NOW HAS A TOTAL OF 74 STATIONS AND 89.5 MILES IN SERVICE. THIS WAS THE LAST SEGMENT FUNDED UNDER THE STARK-HARRIS AUTHORIZATION.

- BREAKING GROUND ON THE RED LINE BETWEEN WHEATON AND GLENMONT IN MARYLAND.

- EXECUTING A FULL FUNDING GRANT AGREEMENT AND BREAKING GROUND ON THE INNER GREEN LINE SEGMENT FROM U STREET IN THE DISTRICT TO FORT TOTTEN NEAR THE DISTRICT/MARYLAND LINE;

- EXECUTING THE FOURTH AND FINAL FULL FUNDING GRANT AGREEMENT WITH THE FEDERAL TRANSIT ADMINISTRATION FOR THE BRANCH AVENUE LINE LOCATED IN THE DISTRICT OF COLUMBIA AND MARYLAND;

- CLOSING ON A LINE OF CREDIT FOR $600 MILLION TO GIVE US THE CAPABILITY TO ENTER INTO CONTRACTS IN ADVANCE OF FEDERAL APPROPRIATIONS AND TO BORROW AMOUNTS NECESSARY TO PAY CONTRACTORS IN ADVANCE OF RECEIPT OF FEDERAL FUNDS. THIS WILL PERMIT US TO BUILD ON THE OPTIMAL CONSTRUCTION SCHEDULE WHILE ALLOWING CONGRESS TO APPROPRIATE AT THE $200 MILLION ANNUAL RATE, AS RECOMMENDED IN THE ADMINISTRATION'S FY1995 BUDGET REQUEST.

IT IS CRITICAL TO THIS FUNDING ARRANGEMENT THAT FEDERAL FUNDS BE PROVIDED AS PROJECTED, SINCE IT IS THAT STEADY AND PREDICTABLE RATE THAT UNDERPINS THE BANKS' WILLINGNESS TO EXTEND CREDIT; AND IT IS THE TIMELY RECEIPT OF FEDERAL FUNDS THAT ALLOWS US TO REPAY THE CASH BORROWED UNDER THIS CREDIT FACILITY.

FY1995 APPROPRIATIONS REQUEST

AS INDICATED EARLIER IN MY STATEMENT, THE AUTHORITY IS REQUESTING $212 MILLION IN FY 1995 APPROPRIATIONS FOR RAIL CONSTRUCTION. THIS REFLECTS THE $200 MILLION WE HAD FORECAST FOR THIS YEAR, PLUS THE $12 MILLION OF THE FY 1993 ADMINISTRATION REQUEST SUPPORTED BY THE AUTHORITY THAT WAS NOT APPROPRIATED BY THE CONGRESS.

THE FY 1995 APPROPRIATION WILL BE USED FOR THE FOLLOWING ACTIVITIES:

FRANCONIA-SPRINGFIELD -- DURING FY1995 WE WILL COMPLETE CONSTRUCTION OF THE LINE SECTIONS, THE STATION AND THE PARKING STRUCTURE. TRACKWORK INSTALLATION WILL CONTINUE. WE WILL ALSO AWARD CONTRACTS FOR TRAIN CONTROL, TRACTION POWER AND COMMUNICATIONS.

WHEN THIS SEGMENT OPENS IN 1997 WE EXPECT TO SEE A DRAMATIC INCREASE IN RIDERSHIP DRAWING TRAFFIC OFF THE CONGESTED 1-95/395 CORRIDOR.

GLENMONT -- DURING FY1995 WE WILL CONTINUE CONSTRUCTION OF LINE TUNNELS, THE GLENMONT STATION AND THE RAIL CAR STORAGE YARD. WE WILL ALSO AWARD CONTRACTS FOR TRACKWORK PROCUREMENT AND SYSTEMWIDE WORK.

THE COMPLETION OF THE GLENMONT LINE AND YARD WILL ENABLE THE RAIL SYSTEM TO OPERATE MORE EFFICIENTLY AS WE MINIMIZE DEADHEAD MILEAGE AND INCREASE OUR RAIL CAR STORAGE CAPACITY.

U STREET TO FORT TOTTEN -- DURING FY1995 WE WILL CONTINUE CONSTRUCTION OF THE LINE TUNNELS AND THE COLUMBIA HEIGHTS AND GEORGIA AVENUE STATIONS. WE WILL ALSO COMPLETE TRACKWORK DESIGN AND INITIATE DESIGN OF TRACTION POWER, TRAIN CONTROL AND COMMUNICATIONS CONTRACTS.

CLOSING THE GAP BETWEEN FORT TOTTEN AND U STREETS WILL ENABLE US TO SERVE NEW MARKETS AND GIVE RIDERS ON THE OUTER GREEN LINE FROM GREENBELT A THROUGH TRIP TO DOWNTOWN WASHINGTON, WITHOUT BEING FORCED TO TRANSFER AT FORT TOTTEN.

BRANCH AVENUE -- DURING FY1995 WE WILL CONTINUE REAL ESTATE ACQUISITION AND WE WILL COMPLETE FINAL DESIGN OF THE STATION AND LINE CONTRACTS. WE WILL ALSO INITIATE DESIGN OF THE TRACKWORK AND TRACTION POWER CONTRACTS.

BY OPENING THE BRANCH AVENUE LINE, WE WILL BE ABLE TO SERVE THE FEDERAL WORKFORCE AT ANDREWS AIR FORCE BASE, THE U.S. BUREAU OF THE CENSUS, THE U.S. NAVY, THE SMITHSONIAN, AND THE SUITLAND FEDERAL CENTER.

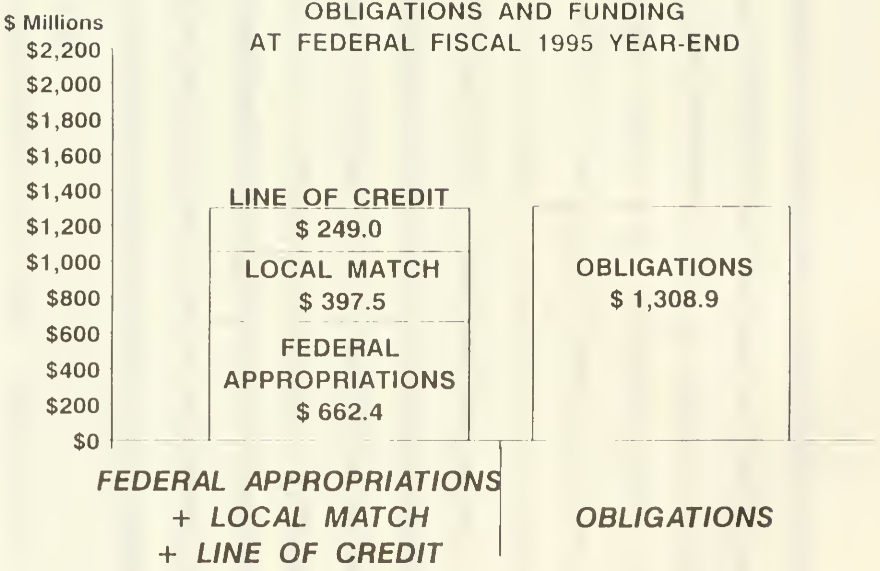
AS SHOWN IN CHART 3, BY THE END OF FEDERAL FISCAL 1995, WE WILL HAVE RECEIVED $1.1 BILLION IN FEDERAL AND LOCAL FUNDS, AND EXPECT TO HAVE OBLIGATED OVER $1.3 BILLION IN TOTAL FUNDS, OR ROUGHLY 60 PERCENT OF THE $2.1 BILLION TOTAL PROJECT COST. THE DIFFERENCE BETWEEN THE TWO AMOUNTS REPRESENTS FUNDS THAT WILL BE SUPPORTED

CHART 3

metro

Washington Metropolitan Area Transit Authority

CONSTRUCTION PROGRAM *FAST TRACK*



OBLIGATIONS AND FUNDING
AT FEDERAL FISCAL 1995 YEAR-END

BY THE LINE OF CREDIT. THE EXCELLENT FEDERAL SUPPORT WE HAVE RECEIVED FROM THIS SUBCOMMITTEE, AS WELL AS THE ENTIRE CONGRESS AND THE ADMINISTRATION HAS ENABLED US TO ASSURE FINANCIAL INSTITUTIONS OF SOLID FEDERAL SUPPORT TO COMPLETE THE 103 MILE SYSTEM.

THE ADMINISTRATION'S SUPPORT OF THE FAST TRACK PROGRAM HAS RESULTED IN EXECUTION OF ALL FOUR FULL FUNDING AGREEMENTS AND INCLUSION OF $200 MILLION FOR METRORAIL CONSTRUCTION IN ITS FY1995 BUDGET. WE ARE EXTREMELY APPRECIATIVE OF THE COMMITMENT CONGRESS AND THE ADMINISTRATION HAVE MADE TO COMPLETING THE 103-MILE SYSTEM, USING THE FAST TRACK APPROACH.

IT IS CLEAR THAT THE ACCELERATED CONSTRUCTION PROGRAM IS YIELDING GREAT DIVIDENDS. THE CURRENTLY FAVORABLE CONSTRUCTION BIDDING CLIMATE, COUPLED WITH OUR EFFORTS TO EXPEDITIOUSLY RESOLVE CONSTRUCTION

CLAIMS, IS SPEEDING THE DELIVERY OF RAIL SERVICE TO MANY TRANSIT DEPENDENT POPULATIONS THROUGHOUT THE REGION.

OPERATING BUDGET

WE ARE ALSO REDOUBLING OUR EFFORTS TO CONTROL OUR OPERATING COSTS. THIS IS BECOMING INCREASINGLY IMPORTANT AS FEDERAL, STATE AND LOCAL FUNDING BECOME MORE CONSTRAINED IN FY1995. THE LOCAL SUBSIDY IS ACTUALLY REDUCED BY 1.4 PERCENT COMPARED TO FY1994; HOWEVER, THE LOCAL GOVERNMENTS IN THIS REGION WILL STILL BE PAYING $294 MILLION IN 1995 TO COVER METRO OPERATING COSTS NOT COVERED FROM FAREBOX REVENUES AND OTHER SOURCES.

THE AUTHORITY'S FY1995 OPERATING BUDGET MAINTAINS HIGH QUALITY METRORAIL AND METROBUS SERVICE WITHOUT REQUIRING AN ACROSS-THE-BOARD FARE INCREASE. BY

CONTINUING TO STREAMLINE OPERATIONS AND CONSTRAIN STAFFING, OPERATING COSTS INCREASE ONLY 3 PERCENT IN FY1995, COMPARED TO THE PREVIOUS YEAR, DESPITE A 10 PERCENT EXPANSION OF THE RAIL SYSTEM. AS SHOWN IN CHART 4, STAFFING FOR FY1995 WILL BE 8,596 POSITIONS, ALMOST EQUAL TO FY1988 LEVELS, ALTHOUGH DURING THIS TIME METRORAIL SERVICE HAS GROWN 28% (AS MEASURED BY RAILCAR MILES), WITH ONLY A SLIGHT REDUCTION IN BUS MILES.

ONE COMPONENT OF OUR COSTS IS FEDERALLY MANDATED PROGRAMS, INCLUDING AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE AND INCREASED DRUG TESTING REQUIREMENTS. IN FY1995, THE AUTHORITY WILL SPEND APPROXIMATELY $5 MILLION IN OPERATING COSTS IN ORDER TO COMPLY WITH NEW FEDERAL MANDATES, AND WE FACE POTENTIALLY SUBSTANTIAL CAPITAL COSTS ASSOCIATED JUST WITH COMPLYING WITH THE PLATFORM EDGE REQUIREMENTS OF ADA.

OUR OPERATING COSTS ARE PROJECTED TO INCREASE BY $20 MILLION COMPARED TO FY1994 AND OUR COST RECOVERY RATIO FOR FY1995 WOULD RISE TO 55.6%, UP FROM 53.6% IN FY1994. OUR EXCELLENT COST RECOVERY RATIO REFLECTS SEVERAL FACTORS, NOT THE LEAST OF WHICH IS MARKETING OF NEW PASSES, EMPLOYER TRANSIT SUBSIDIES AND IMPROVED SERVICE RESULTING FROM CLEANER BUSES, ENHANCED SATURDAY SERVICE, IMPROVED ESCALATOR/ELEVATOR MAINTENANCE AND A MORE RELIABLE BUS AND RAIL FLEET.

CAPITAL IMPROVEMENT PROGRAM (CIP)

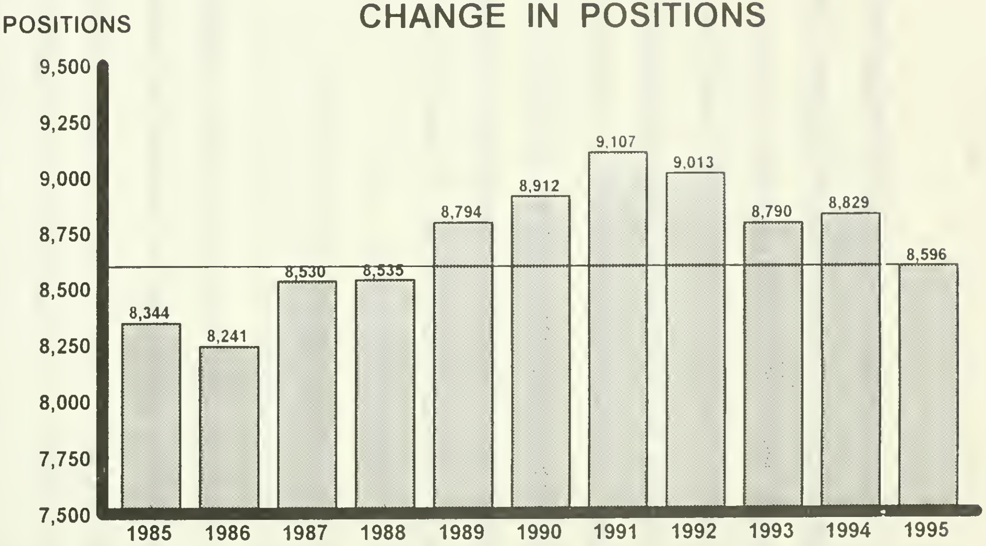
THE AUTHORITY'S FY1995 CAPITAL IMPROVEMENT PROGRAM IS PART OF A LONG RANGE REHABILITATION PROGRAM DESIGNED TO ENSURE THAT THE SIZEABLE PUBLIC INVESTMENT IN METRO FACILITIES AND EQUIPMENT IS MAINTAINED TO CONTINUE QUALITY SERVICE DELIVERY AND SAFETY. THE TOTAL COST FOR THE 1993-1999 CIP IS $823 MILLION.

CHART 4

metro

Washington Metropolitan Area Transit Authority

FISCAL 1995 STAFFING
CHANGE IN POSITIONS



WE HAVE MADE SUBSTANTIAL PROGRESS IN FY1994 IN UPGRADING OUR RAIL FLEET, MODERNIZING OUR BUS FLEET AND IMPROVING OUR PHYSICAL PLANT. THIS FISCAL YEAR WE HAVE REBUILT 134 ROHR CARS, INCLUDING REPLACING THE PROPULSION SYSTEMS TO ACHIEVE ENERGY AND COST SAVINGS AND ARE PURCHASING 139 STANDARD BUSES AND 25 ARTICULATED BUSES, USING FLEXIBLE ISTEA FUNDS TRANSFERRED FROM MARYLAND, VIRGINIA AND THE DISTRICT OF COLUMBIA, AS WELL AS SECTION 9 GRANTS AND BOND PROCEEDS.

WE ARE EXTREMELY PLEASED THAT THIS YEAR WE WERE ABLE TO WORK IN CONCERT WITH THE DEPARTMENT OF TRANSPORTATION TO REFINANCE OUR ONE-THIRD SHARE OF $997 MILLION IN OUTSTANDING TRANSIT REVENUE BONDS. BASED ON AGREEMENTS WITH OUR LOCAL JURISDICTIONS TO CONTINUE THE CURRENT LEVEL OF PAYMENTS, THIS PERMITTED US TO GENERATE $56 MILLION IN SAVINGS TO APPLY TOWARDS OUR CIP.

WHILE OUR CIP IS CURRENTLY FULLY FUNDED, THIS LEVEL OF FINANCIAL SUPPORT IS EXTREMELY DEPENDENT ON CONTINUED FEDERAL SUPPORT OF SECTIONS 3 AND 9 AND THE WILLINGNESS OF THE JURISDICTIONS IN THIS REGION TO CONTINUE TO PROVIDE ISTEA FLEXIBLE FUNDS. IT IS CRITICAL THAT WE REMAIN COMMITTED TO MAINTAINING METRO'S CAPITAL PLANT AND FACILITIES. UNDERINVESTMENT IN REHABILITATION AT THIS POINT COULD HAVE THE EFFECT OF SERIOUSLY ERODING OUR SERVICE LEVELS.

CONCLUSION

YOU HAVE MY PLEDGE THAT METRO WILL REDOUBLE ITS EFFORTS TO BRING THE 103 MILE SYSTEM IN ON BUDGET AND ON TIME. THE MOST CRITICAL ELEMENT NEEDED TO KEEP THE FAST TRACK PROGRAM PROGRESSING IS REGULAR FEDERAL APPROPRIATIONS AT THE $200 MILLION LEVEL.

THE STEADY SUPPORT OF THE ADMINISTRATION AND THE CONGRESS WILL ALLOW US TO KEEP OUR CREDIT FACILITY IN PLACE AND TO CONTINUE BUILDING AT AN OPTIMAL RATE.

WE GREATLY APPRECIATE THE SUBCOMMITTEE'S PAST SUPPORT. WE ARE VERY PLEASED TO BE ABLE TO DEMONSTRATE THAT THE FAST TRACK PROGRAM IS INDEED YIELDING THE TAXPAYER SAVINGS AND TIME BENEFITS WE PROMISED. I WOULD BE HAPPY TO ANSWER ANY QUESTIONS.

LAWRENCE G. REUTER

GENERAL MANAGER
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Lawrence G. Reuter brings more than two decades of varied public and private sector transportation experience to the Washington Metropolitan Area Transit Authority where he assumed the position as General Manager on March 10, 1994.

He began his career with the Auto Train Corporation of Sanford, Florida, where, over a period of eleven years, he moved from Project Engineer to Vice President of Operations. In 1982 he became the chief operating officer for an interurban rail rapid transit system when he was appointed General Superintendent of the Staten Island Rapid Transit Operating Authority in New York. After two years he was made the General Manager for Staten Island at the New York City Transit Authority, expanding his responsibilities to include the Staten Island Surface bus fleet as well as the rail system.

Mr. Reuter's management achievements in Staten Island led to his appointment as the Vice President of Surface Transportation at the New York City Transit Authority, which placed him in charge of the city's 3,600 bus fleet, 13,000 bus employees, twenty one depots and five overhaul shops. His next position at NYCTA, Vice President for Rapid Transit, gave him responsibility for all subway operations. Before leaving New York City, he was Senior Vice President of Operations, managing a budget in excess of $2 billion and 43,000 employees, and the daily operation and maintenance of 3,800 buses, 6,200 subway cars and their supporting infrastructure.

In 1991 Mr. Reuter was made the General Manager of the Santa Clara County Transportation Agency in San Jose, California. As the Chief Executive Officer for county transportation, he had responsibility for the management of county highways, general aviation airports and public transportation. Among his principal accomplishments during his tenure in San Jose, he completed the County's first light rail system and successfully negotiated a three-county joint purchase of a commuter railroad from the state of California. He held this position for three years prior to his appointment as General Manager at WMATA.

Mr. Reuter earned a Bachelor of Science Engineering degree from Florida Technological University in Orlando, Florida.

Mr. CARR. Well, I thank you, and I have some comments and questions, but I note that my good friend and colleague from Virginia has a schedule conflict so I will yield to Mr. Wolf now for whatever comments he would like to make.

EMPLOYEE TRANSIT BENEFITS

Mr. WOLF. Mr. Chairman, thank you very much. I appreciate that. There are two other meetings taking place. One is a meeting of the ranking members with Mr. Obey at 2 o'clock, and then another meeting, so thank you very much.

I will be quick and maybe I can get yes or no answers and then ask more questions for the record.

I had a series of office hours and town meetings last week, and several enlisted military personnel came to see me urging that DOD participate in the transit benefits program.

Do you have any comments about that, why DOD is not participating in that, or are you meeting with the Secretary to talk about that?

Mr. REUTER. I am not aware of that at this time, Congressman. I don't know if Peter—or we will find out.

Mr. BENJAMIN. No.

They certainly have the option of participating in the Metrocheck and Metropool programs.

Mr. WOLF. But they are not and a lot of them are enlisted men and women, E–5's, E–3's, E–6's, that do not really make a lot of money. They live out in Mr. Hoyer's area; they live down in Woodbridge and Dale City. They want to participate in the program and DOD has not signed up.

I would suggest——

Mr. REUTER. We will get a meeting with DOD. We encourage people to use the Metro system, we really do.

Mr. BENJAMIN. We even have ads in our trains aimed at uniformed personnel suggesting that they approach their personnel offices to try to get them involved in our Metrocheck program.

Mr. WOLF. I thought there was some stumbling block keeping them from participating.

Mr. BENJAMIN. Not on our part.

Mr. REUTER. Peter is right. I was on a train this morning. We have an ad especially designed for military personnel. We will check and give you an answer back.

Mr. WOLF. If you will do that.

[The information follows:]

Public Law 103–472, the Federal Employees Clean Air Incentives Act, authorizes the U.S. military to participate in transit benefit programs. In response to this new law, WMATA staff contacted officials in each military branch and Metropool materials were delivered to them. The Department of Defense (DOD) is currently conducting a national assessment of the impact of this benefit on military personnel, especially with regard to the differing requirements and benefit levels around the country. The DOD plans to commence planning in June, 1994, and WMATA is confident that a national program for military personnel will be implemented.

SAFETY AND SECURITY

Mr. WOLF. Secondly, the safety issue, the situation with Tom Sherwood's son, and many others. That one just sticks in my mind because of the name. That was at Dupont Plaza, I believe.

Mr. REUTER. Yes, sir.

Mr. WOLF. You are going to have to be sensitive to this, as I know you will. And by the way, I want to welcome you to the committee for the first time.

Mr. REUTER. Thank you.

Mr. WOLF. I look forward to working with you for many, many years.

But systems in New York have gotten bad reputations and people do not ride them. The same has happened in certain segments of Philadelphia. Can you talk a little about safety at all the stops?

Mr. REUTER. I have taken a fairly close look at that on the first month on the job. WMATA has an excellent safety and crime record. If you compare us with the other systems, we have the best safety record there is.

With that said, any crime and any safety infraction is a concern to us because it hurts our ridership and jeopardizes what we are in business to do. Whenever we have those types of activities occur on a system, we look closely and investigate them to see if there is any type of pattern or things we can do to try to accommodate or alleviate some of those concerns.

Our police department responds very swiftly in dealing with those types of issues and we bolster security in certain areas along the system as we try to curb any increasing crime. Most of the increase in crime in the WMATA system is in parking lots. Vandalism of cars is our biggest concern.

Mr. WOLF. New Carrollton, some in Vienna.

Mr. REUTER. That is right. But as you know, we have policemen out on bikes now.

Mr. WOLF. I did not know.

Mr. REUTER. We do. They wear yellow shirts. They are very visible and that makes them more effective.

Mr. WOLF. Do they go on the train; ride it and get off?

Mr. REUTER. Yes, and they use their bikes to patrol through the parking lots. That has become more effective at helping us to patrol some of the parking lots.

Mr. WOLF. Are you checking with other systems around the country to see what they are doing?

Mr. REUTER. Yes, in fact we sent our chief out to BART on a peer review of the BART system to look at how they deal with crime, and we are checking with all systems in the area.

DAY CARE CENTERS

Mr. WOLF. Good.

Day care; Vienna. We included some bill language, and I think Maryland is ahead of us, are they not? We included language in a previous bill for day care at the Vienna stop. Any progress? Anything happening?

Mr. BENJAMIN. We put together a program in which we offered to all of the jurisdictions the opportunity to put day care facilities at Metrorail stations, and we said that we would make land available to them, would cooperate and would work with them in every way. The only jurisdiction that has taken us up on our offer has been Montgomery County, and they are just about to open up a day care center at the Shady Grove station.

We have had no expressions of interest from any Virginia jurisdictions.

Mr. WOLF. So my amendment offered by a Member of Congress from Virginia has been used by Maryland.

Mr. BENJAMIN. It was very effective.

Mr. HOYER. We appreciate the help.

RIDERSHIP EXPENSES

Mr. WOLF. Well, we will look and see.

The other issue, and then I will submit the rest for the record so Mr. Hoyer will also have time, well, there are two questions. They tie in.

The operating costs. I think getting into this town has become a grim experience. I think the more that we encourage people to use Metro, the better. But the costs are getting so high, as we chatted. Oakton Drive to Vienna, you pay——

Mr. REUTER. Two and a quarter.

Mr. WOLF. Two and a quarter; $2.90 to come in?

Mr. REUTER. During peak, yes.

Mr. WOLF. Two dollars and ninty cents to go out.

Mr. REUTER. Yes.

Mr. WOLF. That's tough for a single parent, two kids. I think we are seeing the ridership reaching a certain point where it is too expensive. I see what Fairfax County now did with regard to the bus system which puts a burden on the other areas. I think I am going to offer a bill to reopen the Metro compact.

The staff provided yesterday a list of the wage scales, which is not here, and you are up at the top.

Mr. REUTER. We are number six.

Mr. WOLF. Number six, and you have a 70 cent raise coming in.

Mr. REUTER. In a few months, which will put us up to number three.

LABOR RATES

Mr. WOLF. Number three. I think—and this is not against the workers, because I think we have to pay labor a good salary—but I think we are kind of bumping up against a certain point. And what do you call it in the Metro business, the——

Mr. REUTER. Elasticity?

Mr. WOLF. And I think we are going to see it. I am hearing it again. At the office hours, people came up to me and said, I can barely afford to come in; I couldn't find a parking spot at Metro at Vienna. And if you do not get to Vienna by 8 o'clock, you are in deep trouble, probably even 7:30, and I think we are going to have to look at that.

Hopefully, we can look at it in a bipartisan, noncontroversial way so that labor will not feel threatened, but if we see the hourly cost on top of the health benefits on top of the other things, I just think the total costs are going to bring us down.

And Fairfax County, which I cannot be critical of because it is in my district, and I understand, but I think people are going to bail out of the bus system. What we may end up having is a Metrorail system.

Let me tell you I think you all do a good job and I think it is a safe, efficient, clean, well run system. Not perfect, but nothing is perfect. But do you have any thoughts about that? Because I now see articles in the paper, I saw one in *The Washington Post, The Washington Times,* where the people of Georgetown said now they would like to have a stop. Well, they had an opportunity and they passed.

And then as you extend the lines in and Georgetown swings toward Metro—Georgetown and Tyson's Corner missed an opportunity, I think. Had I been involved in it, I think Metro should have gone to Tyson's Corner and Georgetown. I know Mr. Hoyer is having the same problems in his area. The suburbs are moving farther and farther out and we want people to use it and yet I am afraid we are just reaching the price point where people are being driven back to their cars.

Mr. REUTER. I think it is a very critical question for us right now and one of my priorities.

I began at Metro just as Virginia jurisdictions began to privatize service on a large scale. Currently, we are number six on our hourly rate of pay. We will become number three on our wage rates because of a contract that has been negotiated. When you look at our overall costs, though, either as a cost per hour or cost per rider, we number 16 or 17 in the country. That is because we have very good internal cost controls in other areas.

With that said, we still have to be competitive. We have to be able to deal in the environment we live in. One of the things we have to look at is that we operate two types of bus systems. We run an inner city, urban service in Washington, D.C., and a more suburban express type in outlaying areas. We need to have certain flexibilities applicable to different types of bus service.

For example, the service in the Herndon-Reston area provides for two peak periods. They provide service in the very early morning and the afternoon. There is a lot of dead time. Our work rules do not necessarily accommodate that type of situations. There are things we must look at and address.

Mr. WOLF. I know, and I think they are going to have to. I would ask you to be sensitive. We will talk to your staff about putting together some language, and the other thing is make sure—we should take advantage of Mr. Linton's expertise. I don't know if he is here now. Excuse me, there you are. The IVHS idea. We are getting complaints of trains coming to the West Falls Church stop at 8:03 and the bus left at 8:02, and so the tie-in.

Thank you very much, and I yield to the gentleman from Maryland, and I will submit the rest of the questions.

Mr. CARR. I thank the gentleman.

Mr. WOLF. With a wage rate of $17.64, Metro ranks near the top of transit systems nationwide in terms of labor cost. Last year, you testified that your labor costs comprise 80 percent of your operating costs.

BINDING ARBITRATION

As you know, I have contemplated legislation which would alter the compact with respect to binding arbitration. This may put you on the spot, but would the removal of binding arbitration be helpful to Metro's labor negotiations?

[The information follows:]

Yes, the elimination of binding arbitration could change the parties' approach to contract negotiations. The parties tend to come to the bargaining table with contract modification proposals that are unreasonable in anticipation that if they go to arbitration, the arbitrator's decision will result in as much or more that could have been realized in the negotiations.

OPERATOR SALARIES

Mr. WOLF. What are the current average salaries for bus drivers and station operators?

[The information follows:]

The current average salary for bus operators and station managers is based on the employee's top hourly rate, plus an average longevity increase of 3.5 percent and an hourly guarantee of forty hours per week (overtime is not included since it is worked voluntarily and is not guaranteed).

Bus and rail operators' average salary is $38,000.

Station managers' average salary is $36,000.

LOCAL BUS SERVICE

Mr. WOLF. When Fairfax County recently decided to replace Metrobus service in the Reston/Herndon area with a private bus company, three neighboring local jurisdictions offered Fairfax County cash to stay in the Metrobus system. Arlington, Alexandria, and Falls Church said that unless Fairfax County scrapped its plans, their own costs could go up forcing them too to privatize—a chain of developments which could lead to the breakup of the regional Metrobus system.

In announcing its decision to hire a private contractor, Fairfax County officials said that Metro costs have spiraled out of control. They indicated that even though the county will pay $1.3 million annually for the buses and give up $500,000 in State transit assistance, the private service will still cost $700,000 less than Metrobus service. Given these potential savings cited by Fairfax County, how do you persuade other jurisdictions not to go down this path also?

[The information follows:]

The only way of persuading the local jurisdictions to continue with Metrobus as their service provider is by making Metrobus more cost competitive. By reducing or eliminating the cost savings that can be achieved by privatizing Metrobus service, we will be in a better position to promote the benefits and advantages of maintaining Metrobus as a regional service provider.

REMOVAL OF BINDING ARBITRATION

Mr. WOLF. Isn't Metro's high labor costs a central part of this dilemma, and doesn't this also argue for legislation to remove binding arbitration from negotiations?

[The information follows:]

Yes. WMATA's experience of interest arbitration during the 1970's has resulted in cost of living adjustments that have contributed to today's high wage rate.

METROPOOL USE

Mr. WOLF. In reviewing a chart reflecting participation in the so-called "Metropool" program, it is obvious this program has experienced rapid growth. For example, in fiscal year 1992, there were an estimated 30,000 employees (both government and private) participating in the program. In fiscal year 1994, as of March 28, you have approximately 50,000 employees participating. Also, in fiscal year 1992, you had 133 private sector and government accounts, compared with 510 today.

Has any research been done to determine if the Metropool participants are employees who previously commuted to work via single occupant automobile? Or, are these employees who have switched from vanpools or HOVs? This is important from the standpoint of determining if the subsidy level is sufficient for luring single occupant vehicles off the roads.

[The information follows:]

A September 1993 report issued by the United States General Accounting Office stated:

"Three out of four federal employees who receive transit benefits from their agencies were already riding public transportation as their primary means of commuting to work before their agencies began participating in a transit benefit program. Among the 21 percent of transit benefit recipients who reported shifting their primary means of commuting to public transportation because of the availability of the benefit, nearly 60 percent previously commuted by driving alone, 16 percent were in carpools/vanpools, and 19 percent shared a ride with one other person."

In January of 1994, Decision Data Collection, an independent market research firm, was contracted by WMATA to conduct an evaluation of the MetroPool program. The data collection for this study was completed on April 1, 1994, with 981 MetroPool participants responding. Top Line results of these findings indicate that:

7.1 percent started using the program prior to 1992, 31.4 percent during 1992, 44.1 percent during 1993, and 5.2 percent so far in 1994. The remaining 12 did not respond to this question;

71.4 percent said that they began using the program as soon as it became available at their place of work;

21.8 percent indicated that prior to joining the MetroPool program, private vehicle was their primary mode of commuting; 10.1 percent said it was carpool or ridesharing and 2.4 percent indicated it was Vanpool service;

A preliminary estimate indicates that between 40 and 45 percent of these respondents use more than one travel mode for a typical commuting trip; and,

The availability of the MetroPool program had a great deal of influence on the decision to use mass transit for 43.5 percent of these respondents; some influence for an additional 23.5 percent; very little influence for 8.1 percent; and no influence at all for 22.4 percent.

PROPOSED PARKING TAX

Mr. WOLF. Mayor Sharon Pratt Kelly recently suggested an increase in the District's parking tax from 12 to 42 percent, as well as a $1-a-day levy on federal workers' District parking spaces. This was part of an attempt to reduce the District's subsidy payment to Metro.

In a subsequent news article, Metro reacted warmly to this idea, indicating that this would result in an additional 3,000 riders a day. Can you explain to the Committee how you computed this potential ridership increase?

[The information follows:]

Under the proposed parking tax increase, the daily parking fee would increase by 27 percent. Using a resistance factor of 0.15 percent, it is estimated that 4 percent of the non-federal parking users would be lost to public transit. Applying the 4 percent against the 75,000 non-federal parking spaces totals 3,000 parkers lost to public transit. For each 1 percent increase in price, it is estimated that there will be a corresponding loss of 0.15 percent in customers.

Mr. WOLF. It is one thing to offer an incentive, such as the $60 monthly transit subsidy to employees, but a parking tax is the "stick" approach and I have a philosophical problem with it. For one thing, with more women in the work force, I think there are many employees who feel a need to drive so that if there is a daytime problem involving the children, the employee can get quickly to the care provider, or the school, or the doctor's office. And until we have more onsite day care centers and/or telecommuting centers, this is going to continue. Also, many commuters in the Washington area simply do not live within close proximity to mass transit service. Why should we penalize these commuters?

[The information follows:]

The number of women that drive and park in the central business district is very small compared to the total of all people who drive and park. The parking tax would be imposed on medium to high income persons, and companies that rent blocks of spaces for their employees.

Metrobus and local government bus service is provided throughout the metropolitan area. There are very few areas not served by public transit. In some cases, a person may have to drive a short distance to a bus route. Also, metrorail provides almost 30,000 parking spaces at rail stations. Parking is still available at some stations, and if the demand is there the local governments, together with the Authority, can construct additional parking facilities. We have already done this in Maryland and Virginia.

EFFECT OF PARKING TAX ON METRO

Mr. WOLF. Also, wouldn't a tax proposal like this encourage the relocation of businesses out of the District? And couldn't that end up "costing" Metro some riders?

[The information follows:]

The federal government and Congress are located in the District of Columbia. As long as the power of the government is located in the District, many businesses that depend on the government will remain in the District.

It should be noted that the Metro system extends into the suburbs; therefore, if some business relocate to the suburbs, the people may still be able to use the bus, rail or both for commuting.

WINTER WEATHER EFFECTS

Mr. WOLF. In a February article in the media, Metro officials indicated that mother nature had taken her toll on ridership, with thousands fewer people riding Metro due to harsh weather and shutdown workplaces. At that time, you indicated that the winter's legacy added up to a $2.5 million budget shortfall.

Now that this season is hopefully behind us, do you have final numbers on the impact of the winter, both in terms of ridership and farebox receipts?

[The information follows:]

We finally had our last snowfall in early March. Based on the inclement weather incurred from December 1993 to early March 1994, it is estimated that about 2,260,000 trips were lost on Metrobus and $1,221,000 was lost in revenue. On Metrorail, it is estimated that 1,390,000 trips were lost and $2,023,000 lost in revenue. Total bus and rail trips lost totals 3,650,000 and total lost revenue is $3,244,000.

Mr. WOLF. Given a budget scenario that affords little wiggle room, what is your plan for this weather-induced shortfall?

[The information follows:]

Hopefully some cost savings we will be able to obtain this year will offset part of the weather-related costs. Local subsidies will have to increase to cover the remaining budget overruns, although the local governments are allowed to delay making the extra payments for up to two years.

SAFETY AND SECURITY

Mr. WOLF. The winter season of November, December, and January also represented the most violent three months of Metro's 20-year history. In that three months, Metro had its first fatal shooting of a passenger at a rail station, its first shooting of a passenger on a train, and the first fatal shooting of a transit police officer. In addition, two people were shot on a Metrobus when a man opened fire on them, a woman was harassed and blocked from leaving a train by teenagers, and another woman was assaulted by a group of teenage girls on a bus. Unfortunately, we probably cannot blame this on the weather.

Is this a developing trend? Is the growing perception among area commuters that Metro is less safe than they thought cause for concern?

[The information follows:]

Certainly there have been some exceptionally unusual incidents on Metro recently, which reflect the increase in crime generally throughout the community. However, the mere fact that these incidents received such wide publicity and were so surprising to us all in evidence that Metro is perceived to be—and is—so safe. As far as we can determine, our riders retain that view.

Mr. WOLF. Has this spate of recent incidents prompted a reevaluation of Metro's security strategies? Are there plans to "beef up" security with perhaps more transit police officers and/or security equipment for trains, stations, and buses?

[The information follows:]

We constantly evaluate strategies and make appropriate adjustments to assignment of police personnel to respond to any changes in the patterns of incidents. There are no current plans to increase the number of police officers or security equipment.

PARKING

Mr. WOLF. One of the most common complaints that I hear from constituents is the lack of adequate parking spaces at certain Metro stations, such as the Vienna station. I recently corresponded with you concerning this problem and you indicated that, in the case of that station, you are in negotiations to acquire land to expand parking.

Could you bring the committee up to date on those negotiations and elaborate on what the problem is? Also, could you comment on this problem in general? It would seem that this is a critical issue in any attempts to attract more riders.

[The information follows:]

We are fully cognizant the demand for parking at the Vienna station is well in excess of our supply. The Authority has worked with Fairfax County to find the construction by revenue bond issues the 1,865 space Vienna Station parking structure and the 1,281 space Huntington Station north parking structure. Over half of the parking revenue collected at Virginia stations is used to pay principal and interest on those bonds for the next 20 years. Yet parking is still in short supply, especially along the Vienna Line; and demand continues to grow.

The Authority has committed all of its construction resources to the completion of the 103 mile Metrorail system. Beyond the 103 mile system, we have unfunded needs for a yard on the Branch Avenue line. Further, we have unfunded needs for rail cars to operate the line. Before we can commit to the construction of additional parking capacity, beyond that identified on the 103 mile system inventory, we must complete the 103 mile system and address the other unfunded needs.

For these reasons the Authority is fully behind Fairfax County efforts to work with owners of a private development adjacent to the Vienna Station, to see if they will reopen a 400 space "temporary" parking lot as a commercial venture to provide additional parking at this station. This proposal was presented to the property owner partners, but they were not in full accord of the idea. Some of the partners are apparently concerned that the commercial parking operation could adversely impact plans to complete the planned development of the property. Fairfax County reports that there does not now appear to be any further interest in the commercial reopening of the lot.

At this point in time the Authority's options are limited. We have already modified the existing parking lots to create as much parking as reasonably possible without causing operational problems. We have previously committed a large portion of our parking revenue user fees to construct existing parking, so that option is not viable at this time. We have in the past used UMTA (FTA) Suburban Mobility Initiatives Grant funds to construct parking facilities that had been unfunded, but that program is no longer available.

While we recognize the parking capacity limitation and its constraint of access to the system by those patrons coming especially from outside of the Metro service area, we have worked to enhance and promote other forms of Metrorail station access, principally via bus, that we hope will provide some relief to the parking shortage. For every existing parking patron residing in the Metro service area, we are able to shift to either Metrobus, Fairfax Connector or the City of Fairfax Cue Bus, we effectively create another parking space to serve the unmet demand. Likewise promoting other forms of Vienna Station access including kiss-and-ride, cabs, walking or bicycle can also provide parking relief. At this time this is the extent of our ability to capture potential Metrorail ridership.

MR. HOYER'S REMARKS

Mr. CARR. Mr. Hoyer, do you have any comments or questions?

Mr. HOYER. Thank you for your generosity, Mr. Chairman. I am pleased to be here.

Mr. CARR. Delighted to have the Chairman of the Treasury Postal Subcommittee.

Mr. HOYER. I will say a few words and then I have a Labor Health hearing; Secretary Shalala is next door, and I am on that subcommittee as well.

First of all, welcome. We are very pleased in this area, of course, to have you, real experience both on the east coast and west coast.

We are very proud of this system, as you know. Mr. Carr's predecessor, Bill Lehman, called it "America's subway." I think most Members believe it is America's subway. Literally thousands of their constituents use this system, and I want to congratulate you and reiterate what you said about where we are in this system.

The impending probability that we will complete this five years ahead of schedule, $600 million under budget, that is an extraordinary accomplishment I think, and David Gunn, your predecessor, I think was critical of that. As you know, Mrs. Turner was critical of getting us to the point where we had enough money to either be on schedule, or saving money, in any event.

I think the $212 million, hopefully this Committee in a very, very tight environment will have the ability to sustain that level of funding, because, obviously, a savings of $600 million and then getting to the five years is premised on the continued level of funding.

I want to thank Mr. Carr and congratulate Mr. Wolf, both of whom you will find, Mr. Reuter, are very strong supporters. Mr. Carr asks tough questions. That is his job. As he always is, he is concerned about how we spend the public's money; that is what we expect out of it. But he has been very supportive, and Mr. Wolf has been a champion on this subcommittee and in the Congress and in his party, and in a bipartisan way we have worked on this.

So, Mr. Chairman, I appreciate your giving me this opportunity to welcome, along with you, Mr. Reuter, to the Washington metropolitan area, to this responsibility, and say that I look forward to working with you to get us five years ahead of schedule and $600 million under budget.

Mr. CARR. Well, I thank you, and everyone knows that you, along with Mr. Wolf, are probably the most ardent supporters of WMATA in the Congress, and your advice and counsel has been gratefully received by this Committee.

I think we will take a short recess for a vote and be right back. I wanted to indicate, though, that owing to the fact that there is a 2:30 meeting, we will have to be very short with remarks. We will be asking a lot of questions for the record.

And because of our shortness of time, we hope to be marking up earlier than we normally do; I would ask that you answer those questions very quickly, if you would.

Mr. REUTER. Positively.

Mr. CARR. We will take a short recess right now.

[Brief recess.]

EXTENSIONS TO THE 103 MILE SYSTEM

Mr. CARR. I would like to talk to you about recent press reports that indicated that metro transit officials have asked local jurisdictions to recommend possible extensions to the 103 mile systems. Are these reports accurate?

Mr. REUTER. Yes, as part of the authority's long range planning, looking towards the year 2010 or 2020, the board asked our former General Manager, Dave Gunn, to contact the local jurisdictions to see what their interests are.

I must point out that it is our clear priority to complete the 103 miles. The Board's initiative is long-term range planning to look at all bus and rail transportation improvements through the year 2010 and beyond.

Mr. CARR. Exactly what information has been requested?

Mr. REUTER. We have requested that the local jurisdictions give us a point of contact. It is envisioned that the point of contact would identify corridors and transportation improvements that need to be revised. It has really only gotten to the point of getting contacts at this time.

Mr. CARR. Is one of the major reasons for discussing additional expansion that part of the current engineering and planning staff figure they may be out of work in a few years?

Mr. REUTER. It is a fact that when we complete the system their work will be done. That is not really the reason to be looking for future expansion. We are really looking for transportation demands and needs far in the future.

A transportation plan for 2010 and beyond is not going to resolve the immediate problem our construction staff faces that we are going to be completing the system in five years. That is something we will have to deal with. We will have to deal with the fact that we are going to complete the system, and have this talented staff on board that does the design and construction management. This is not going to be solved with the planning exercise.

Mr. CARR. You know that Washington Metro is the largest rail project that has been constructed since the advent of the Federal Transit Administration and its predecessor UMTA, approximately 30 years ago. With interest rates included, the total cost to the federal government for the system will exceed $10 billion. Would it not be more in the national interest to determine which communities have the greatest need and if funding is available to address those needs rather than trying to expand the Washington system?

Mr. REUTER. That is really what this is about. This is not to say it is necessarily going to be the Washington metrorail system. This planning exercise involves consulting with all of the jurisdictions, including Maryland, Virginia, as well as the District. We will be looking to see what are the transportation needs for the region. It is not yet determined that those needs are going to be met by Metrorail at this time. The recommendations could be rail, bus or other transportation improvements. There is no predetermined conclusion already as to what, if any, of those transportation methods would be. It is really just a planning process to start identifying those and evaluate them.

LONG RANGE PLANNING

Mr. CARR. I know you can put a good face on it. And I am not here to dispute that. The thing I would like to tell you in the strongest possible terms, as Mr. Hoyer said, I am a supporter of Metro, but there is a limit. And I think I speak for most people in America, and I hope Mr. Linton would pay attention to this, too, WMATA has had an extremely privileged position concerning mass transit in this country. It has had a line item appropriation. Chicago, Los Angeles, New York, Atlanta, Houston, Dallas—and all other cities, do not have line items. They all would love to do fast track. They could do more with less money if we could give them fast track dollars. They do not get it, but WMATA gets it.

WMATA has had an incredibly privileged position. It has benefited from the notion, as Mr. Hoyer said, that it is America's subway system. While portions of it may be America's subway system, riding in Virginia from Vienna to Ballston is not. It is local transportation.

I think we, as Americans, across the country, have been very, very generous with WMATA. The generosity has to have a limit. There has to be a day when WMATA does not ask to extend its privileges. I get worried when I hear people asking for yet another extension. We have another community that would like to be on line. We have another this. We have so on and so forth. And now as your own testimony points out, even under fast track you have now a desire to get into the rail mod portion of the budget.

Now, I think everyone here knows that the rail mod part of Section 3 was at least initially designed not with the WMATAs in mind. Section 3 rail mods were for the cities of Chicago and New York and Philadelphia that built their systems on their own, with their local dollars and their local capitalization. And when it came about that we had an urban mass transit act and we had section 3, it was felt that systems that had been built on their own dollars would require some rebuilding and that they ought to be able to get a piece of the action.

In those early days it was not contemplated that new systems financed with section 3 would try to get rail mod money after they were 20, 30 years old, even though they may have needs, capital needs for maintenance and updating and other expenses. There is WMATA and MARTA and BART, and they are in there because when they run out of something they want to build there is some more something they want to modify. And I guess what I am doing is speaking for all the transit properties in America, except for WMATA, saying that the folks at WMATA have got to get it through their noodles that there has to be an end to this gravy train.

I have been a supporter of WMATA, but I could very quickly turn into an opponent, an active opponent of WMATA. WMATA needs to figure out that there is a day when it stops asking. The government has been very generous and I supported the 103 system, I supported fast track, but I do not want it to go any further. If you want to plan for buses and things beyond that, Godspeed. But as far as this Member is concerned, there is nothing beyond 103 miles.

Mr. REUTER. I hear you. We are only asking to complete the 103 mile system and do the planning we think is prudent for the future. We hear you loud and clear as to where you are coming from.

As I told you, our goal is to get the 103 miles done. We are absolutely steadfastly committed to that. We do not want this other talk that detracts from that. We do not want to mislead people. We are only asking for the necessary money now to complete the schedule we have laid out for the 103 mile system. That is our goal.

Mr. CARR. I accept that and I want to back you up on that. If you have planners or engineers in your agency who think they are going to bootstrap themselves into jobs into the year 2020, tell them to forget it. There are not enough dollars and there are too many other communities in America that have taken a back seat while WMATA has been getting all the cash it needs as fast as it needs it. There is no other property in America that gets that and it seems to me that once 103 is hit, WMATA goes into the pool with everybody else and gets in line with everybody else, and I hope the administration would support that position.

I would like you to make a couple of comments, Mr. Linton. I do have to go to a meeting with our brand new mayor of Detroit, who happens to be in town. I do not want to miss that meeting, so if you offered maybe one or two minutes and then we will close with your testimony.

FTA STATEMENT

Mr. LINTON. Sure, Mr. Chairman. I just want to say that the budget that we propose for WMATA is $200 million, which is consistent with our funding in 1994. We see this as also very consistent with our agreement to derive the total fast tracking from the $103 billion that was authorized in 1990.

It is our anticipation that we will be able to complete the remaining $651 million balance of that authorization between the fiscal years of 1996 and 1999.

I would also like to commend the jurisdictions from WMATA. This is somewhat off the subject of our budget request, but they have recently transferred $20 million of flexible funds from highway funds to purchase buses as part of their funding plan for their system. I would like to compliment the jurisdictions of WMATA for doing that and say that that is a good contribution to the system.

[The prepared statement of Gordon Linton follows:]

STATEMENT OF GORDON J. LINTON
ADMINISTRATOR, FEDERAL TRANSIT ADMINISTRATION
BEFORE THE SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS, U.S. HOUSE OF REPRESENTATIVES
THURSDAY, APRIL 14, 1994

Mr. Chairman, and distinguished members of the Subcommittee, I am pleased to have the opportunity to appear before you today to discuss our budget proposal for the Washington Metropolitan Area Transit Authority's (WMATA) fiscal year 1995 Metrorail construction program.

As a veteran of these hearings, having now commenced my second appearance before this Subcommittee, I would like to welcome on behalf of Secretary Peña and myself Mr. Lawrence Reuter who was recently sworn in as the General Manager of WMATA and who is making his first appearance before this Subcommittee. Our best wishes, Larry, as you undertake completion of the "Nation's Subway".

Our proposal for Federal funding of Metrorail construction in FY 1995 totals $200 million which is derived entirely from the $1.3 billion authorized under the National Capital Transportation Act Amendments of 1990. This is the same level of funding proposed by the Administration and appropriated by the Congress in FY 1994 and continues the annual funding program which is required to meet the financial needs of WMATA's "Fast Track" construction plan. This appropriation would bring us to the approximate mid-point of funding for the final 13.5 miles of the Metrorail system.

It is anticipated that the remaining $651 million balance of the authorization will be required in fiscal years 1996 through 1999.

Also, the President's budget requests a one-time appropriation of $664.7 million to repay the Federal Financing Bank for funds borrowed to retire the Federal government's two-thirds principal share of Metro construction bonds. This action has no budgetary scoring impact because it is an intergovernmental transfer. In conjunction with WMATA, which refinanced at a substantially reduced interest rate their one-third share of the original construction bonds, the goverment's bond refinancing transaction was completed in December of 1993. If we had not participated in the refinancing at this time, and assuming that the existing annual interest cost of approximately $50 million was continued to the maturity of the bonds in the years 2012-2014, the aggregate interest cost would have amounted to a total of $986 million.

I wish to note at this point that Federal funding of the initial 89.5 miles of the Metrorail system has been completed and that the final segment of this construction program, the extension of the Green Line from Fort Totten in the District of Columbia to Greenbelt in Prince George's County, was opened for revenue service on December 11, 1993. This massive, $7.4 billion construction program, which began with the award of the first

Metrorail construction contract in December of 1969, was completed on time and within budget consistent with the terms of our 1986 Full Funding Grant Agreement.

In February of 1994 we executed the last of four full funding agreements for the remaining 13.5 miles of the system. This last agreement covers the Branch Avenue line and provides a Federal commitment of $563 million for construction of this extension.

Thus, between September of 1992 and February of 1994, full funding agreements have been executed for the Franconia/Springfield line in Fairfax County, the Glenmont line in Montgomery County, the Mid-City line in the District of Columbia and the Branch Avenue line in the District and Prince George's County. These agreements, including funds for necessary upgrading of the rail system operations control center, provide a Federal commitment of $1.3 billion toward an estimated total construction cost of $2.1 billion.

At this point in the construction program, Federal funds in the amount of $450 million have been approved through fiscal year 1994 which, with local matching funds, provides for a $720 million design and construction program. To the great credit of

WMATA staff and the fast track methodology, $380 million of matched funds have been put under contract as of today. By early June of this year additional contracts will have been let for a total of up to $530 million of Metrorail construction underway. This pace of contractual obligations will accelerate significantly upon completion of final design activities and the undertaking of construction of the Branch Avenue route. And, WMATA has in place their $600 million credit facility which will in the future enable the letting of construction contracts in advance of the receipt of Federal funding. This is, in fact, the essence of Fast Tracking.

And finally, although not related to the Metrorail construction program, I would like to note that WMATA's jurisdictions - the District, Maryland and Virginia - have contributed $20.4 million of flexible funds available under ISTEA for WMATA's bus replacement program. We look forward to a growing contribution of flexible funds to the Washington metropolitan area's transit needs in future years and compliment the jurisdictions for their efforts to date.

Mr. Chairman, that concludes my prepared statement. I would be pleased to respond to any questions.

Mr. CARR. With that, I would thank you, and I am sorry that the hearing is a little short today. I did want to get into the platform edge issue and a few other things but perhaps at a later time we will have a briefing with the Members of the Committee. There will be additional questions for the record.

Mr. REUTER. Fine.

Mr. CARR. All right.

Mr. REUTER. Thank you.

FAST TRACK PROGRESS

Mr. CARR. As noted in your statement, the President's fiscal year 1995 budget request includes $200 million for WMATA's construction program, keeping the effort on the fast track. The overall effort remains within schedule and under budget, is that correct?

[The information follows:]

Yes, that is correct, the fast track program is on schedule and within budget.

CONSTRUCTION MANAGEMENT

Mr. CARR. Last year, the Acting Administrator of the Federal Transit Administration stated his belief that WMATA had improved an already excellent construction management effort. Mr. Linton, would you agree with that assessment?

[The information follows:]

Yes, WMATA's fast track construction program for the remaining 13.5 miles of the rail system is on time and under budget. By June of this year, some $530 million of construction will be underway out of the $2.1 billion total construction program. The three segments currently under construction are approximately $50 million under budget at this time.

The construction program for the first 89.5 miles, with an estimated completion cost of $7.4 billion, is projected to have an under-run of $5.8 million when all construction claims are settled.

WMATA has undertaken an aggressive effort to close out old claims, some of which date back to the 1970's. These actions have freed funds held in reserve for claims and allowed WMATA to be a better customer of the construction industry by reducing bids.

BID RESULTS

Mr. CARR. Do recent construction contracts indicate there is still an excess of capacity? How do the number of bidders and amounts of bids compare with WMATA estimates? Do you have an estimate of the amount of contract savings?

[The information follows:]

The Authority has been receiving favorable bids on its contracts, which would seem to indicate there is an excess of construction capacity. As of the end of March 1994, the estimated amount of contract savings is $49 million. This will help to fund the purchase of rail cars and the construction of the Branch Avenue Yard. The funding available in the reauthorization enacted in 1990 was insufficient to cover these costs associated with the 103 mile system.

INFLATION RATES

Mr. CARR. Information provided in last year's hearing indicates that WMATA has assumed an annual inflation rate of 5.5 percent for fiscal years 1992 to 2000. On the basis of actual experience in the last year or two, have those figures been revised?

[The information follows:]

The Authority's inflation index has been revised to incorporate the actual inflation rates for 1992 and 1993. The annual forecast through the year 2000 remains at 5.5 percent. This rate is consistent with long-term financial forecasts being used in the construction industry.

Mr. CARR. How do the inflation assumptions affect WMATA's construction budget?

[The information follows:]

The original estimates for the fast track program were in current dollars (1989) which were escalated using WMATA's inflation assumptions. As the program develops, these estimates are refined based on actual bids and projected project costs are adjusted accordingly.

Mr. CARR. To the extent that actual inflation is less than assumed, are resources made available for other purposes?

[The information follows:]

Any savings due to lower bids on contracts, reflecting reduced inflation, help to fund the purchase of rail cars and the construction of the Branch Avenue Yard. The funding available in the reauthorization enacted in 1990 was insufficient to cover these costs associated with the 103 mile system.

Mr. CARR. For the past three years, what is the dollar impact of the difference between assumed and actual inflation in the construction program?

[The information follows:]

As of the end of March 1994, the estimated amount of contract savings is $49 million, which is a measure of inflationary pressures. This will help to fund the purchase of rail cars and the construction of the Branch Avenue Yard. The funding available in the reauthorization enacted in 1990 was insufficient to cover these costs associated with the 103 mile system.

OBLIGATION RATES

Mr. CARR. What are actual 1993 and 1994 obligations for the federal contribution to the construction program?

[The information follows:]

The actual obligations for the fast track program follow:

Total federal and local obligations

	Million
WMATA fiscal year 93 (July 1, 1992–June 30, 1993)	$67.1
WMATA fiscal year 94 (July 1, 1993–June 30, 1994)	[1] 251.0

[1] Obligations are for period July 1, 1993 through March 31, 1994.

BOND REFINANCING

Mr. CARR. Last November the Department of Transportation and Washington Metro refinanced certain bonds of the Metrorail system that will save hundreds of millions of dollars in interest charges. Please briefly explain the details of the refinancing package, including the anticipated savings that will accrue to the federal government and to WMATA.

[The information follows:]

Between 1972 and 1975 the Authority issued $997 million of federally guaranteed bonds that matured between 2012 and 2015. The bonds, which were taxable because of the federal guarantee, carried interest rates between 7.30% and 8.35%.

The Department of Transportation was responsible for repaying two-thirds of interest and principal, while the Authority was responsible for one-third. In November 1993 the Authority issued tax-exempt debt to refund its one-third share and in December 1993 the Department of Transportation borrowed its two-thirds share from the Federal Finance Bank. The guaranteed bonds were then called for redemption on January 1, 1994 which ended the federal guarantee.

Federal interest costs were reduced by about $11 million annually or more than $200 million over the remaining life of the bonds. The Authority's debt service costs remained constant as the interest rate savings were capitalized by issuing additional bonds.

When the guaranteed bonds were redeemed, the sinking fund that had been established to pay the Authority's one-third share of principal on the guaranteed bonds was liquidated and to the extent not needed to redeem bonds, was used to fund the Capital Improvement Program.

Mr. CARR. When will the refinancing savings be realized and to what purpose will they be applied? Press reports have indicated the savings to Metro are $30 million. Information supplied by WMATA claims the savings to be $61 million. Your statement says $56 million was saved. What is the correct number?

[The information follows:]

The savings were realized when the guaranteed bonds were redeemed. The savings have been applied to help close the shortfall in the capital improvement program. The savings were $56 million.The $61 million in the capital improvement program reflects interest accrued on the amount saved.

CAPITAL IMPROVEMENT PROGRAM

Mr. CARR. Information provided last year indicated a shortfall of $149 million in Metro's capital improvement program. Information supplied to the Committee this year indicates no shortfall in the CIP. How has the shortfall been addressed?

[The information follows:]

The overall CIP was not reduced because of the shortfall. Projected increases in funding have served to cover the shortfall. The CIP is now fully funded, reflecting proceeds received through the refinancing of the Authority's transit revenue bonds as well as additional funding attributable to the increased federal sections 3 and 9 appropriations.

Mr. CARR. Part of the shortfall was made up by the proceeds from the bond refinancing, is that accurate? What is the source for the rest of the shortfall identified last year?

[The information follows:]

The Capital Improvement Program funding projects include $61 million in proceeds and projected interest income from the refinancing of the transit bonds and the balance is provided by increased federal funding levels of sections 3 and 9 authorized under ISTEA.

AMERICANS WITH DISABILITIES ACT COSTS

Mr. CARR. Nationwide, the estimated annual cost for transit properties to comply with the Americans with Disabilities Act ranges from $700 million to nearly $1 billion. What is WMATA's estimated annual compliance cost, by capital and operating expenses, if available?

[The information follows:]

The estimated annual operating costs are:

Operating:	
Fiscal year:	*Million*
1994	$2.9
1995	4.6
1996	7.9
1997	10.5

CAPITAL

Over the next four fiscal years, it is estimated that we will spend approximately $9M on capital expenses. ($8M for wheelchair lifts, $500K for station signage and other enhancements, and $500K for miscellaneous items).

The costs for the platform edge detection system and an electronic, visual public address system are not included in the estimate.

PARATRANSIT SERVICE

Mr. CARR. WMATA was supposed to begin its paratransit service last month, but that schedule has slipped. What is the reason for the slippage and when is paratransit service now scheduled to begin?

[The information follows:]

The planned start-up date for MetroAccess, the WMATA Regional Paratransit System, was initially March 31, 1994. However, the start-up date was changed to May 16, 1994. The delay in start-up was caused by the lack of technically acceptable bids for contract carrier services. Acceptable bids were received for only two (2) of the six (6) zones that comprise our service area. Further procurement efforts resulted in the award of contracts for three (3) other zones. Montgomery County, Maryland, the zone for which there is no contract carrier, will use it contractors for intra-county trips.

Despite this unfortunate delay, WMATA's is in compliance with the rules and regulations for phase-in of paratransit service Implementation:

§37.135(d) ". . . full compliance by no later than January 26, 1997 . . . If the date for full compliance specified in the plan is after January 26, 1993, the plan shall include milestones, providing for measured, proportional progress toward full compliance."

The WMATA plan includes milestones to phase-in paratransit service.

Mr. CARR. How does WMATA intent to provide paratransit services? Will you buy vans and operate them or provide the service by contract?

[The information follows:]

The WMATA Regional Paratransit System will provide paratransit services through the cooperative efforts of existing paratransit service operated by some member jurisdictions. This service is called the "core" service. We will use contract carriers to augment the core service and also to provide service to areas in the region where paratransit service is not currently provided.

The member jurisdictions that operate paratransit service will use their respective vehicles. The contract carriers will operate vehicles which they have purchased and leased to WMATA.

Mr. CARR. Do you have any estimate of the cost per trip for paratransit service?

[The information follows:]

As the service has not yet begun, we do not have sufficient operating experience from which to obtain the necessary data to make such an estimate.

Mr. CARR. How will WMATA decide if a person requesting paratransit service is eligible?

[The information follows:]

A person with a disability who wishes to apply for eligibility must complete an application and have it certified by a healthcare professional. WMATA uses an eligibility/certification process to evaluate all applications against the criteria established under the Americans with Disabilities Act (ADA). Under the ADA, a person with a disability is eligible if he or she:

1. is unable, as a result of a physical or mental impairment, to get on, ride, or get off any vehicle on the transit system; or
2. needs the assistance of a wheelchair lift or other boarding device and is able, with such assistance, to get on, ride, and get off an accessible vehicle but such a vehicle is not available on the route when the person wants to travel; or

3. has a specific impairment-related condition which prevents travel to or from a bus stop or rail station.

A person who is denied eligibility may to appeal the denial through the MetroAccess appeal process.

Mr. CARR. What will WMATA charge riders for paratransit services?

[The information follows:]

Fares are determined by doubling the nondiscounted fare for travel between the points of origin and destination using the fastest mode (Metrobus, Metrorail, or local bus service). For example:

If a trip would cost one dollar ($1.00) using Metrobus, that same trip would cost two dollars ($2.00) using MetroAccess.

If a trip would cost one dollar and fifty cents ($1.50) using Metrorail, that same trip would cost three dollars ($3.00) using MetroAccess.

Mr. CARR. Will WMATA have to raise fares charged to other riders in order to cover the costs of paratransit service?

[The information follows:]

Until we get a better understanding for the demand, we do not anticipate raising fares.

Mr. CARR. Will WMATA have to provide paratransit service in areas that currently are served by Metrorail and/or lift equipped buses?

[The information follows:]

Yes. For ADA eligible persons who cannot use accessible fixed-route transit, WMATA will provide service to points within three-quarters (¾) of a mile beyond the fixed-route systems (Metrobus, Metrorail, and local bus service).

Mr. CARR. Of WMATA's total ridership, what is the estimated number of disabled riders?

[The information follows:]

WMATA does not maintain statistics on the number of riders who are disabled. However, we estimate that 36,000 people in the Washington metropolitan area are eligible for paratransit service and that by the year 1997 we will provide approximately 514,000 paratransit trips per year.

PLATFORM EDGES

Mr. CARR. Federal regulations require all rail transit authorities to have in place by July 26, 1994, detectable platform edges for their "key stations." WMATA will not be in compliance as of July 26. You have already had one request for consideration of equivalent facilitation rejected by the Federal Transit Administration. What is the status of the platform edge detectability issue?

[The information follows:]

The Authority intends to comply fully with the Americans with Disabilities Act (ADA). While ADA simply requires key and new rail stations to be fully accessible, the regulations go much further in mandating 24 inches of truncated domed platform edging. The Authority has made a commitment far beyond the legal requirement by pledging that we will have an edge treatment that is consistent in all our rail stations, not simply in key and new stations.

The Authority has requested an exemption from the truncated domed requirement based on our exemplary safety record. With the current 18 inch granite edge equipped with flashing lights there have been so few falls off the platform that the Volpe Center has said that we don't have enough data in this regard for it to be considered statistically significant.

Should our request for an exemption be denied, we have proposed installation of either an eight inch strip of flame finish granite that matches our current edge or an eight inch strip of textured granite immediately behind the existing 18 inch granite edge. Either of these approaches will result in a platform edge system that measures a total of 26 inches. These approaches enable the Authority to preserve the flashing lights, maintain the exceptionally durable granite edge, provide consistency for the visually impaired, and furnish an extra measure of detectability. Further, the Authority's Elderly and Handicapped Advisory Committee, comprised of members of the disability community, has publicly endorsed the use of a wider flame finish granite to resolve this issue.

We are awaiting a response to the above proposal presented in the attached April 6, 1994 letter to the Secretary of Transportation.

metro

Washington Metropolitan Area Transit Authority
600 Fifth Street, NW Washington, DC 20001-2693
(202) 962-1234

APR 0 6 1994

The Honorable Federico Peña
Secretary
U.S. Department of Transportation
400 Seventh St. S.W.
Washington D.C. 20590

Dear Mr. Secretary:

In assuming the post of General Manager I was pleased to learn that the Authority enjoys an excellent working relationship with the Department. It is clear that this Administration is very supportive of transit and that you have made a genuine effort to support the Washington Metro system. I intend to work diligently to continue this relationship.

As the new General Manager, one of my priorities is resolving the platform edge issue our former General Manager, David Gunn, brought to your attention in his February 16th meeting with you. I want to reiterate the Authority's commitment to complying with the Americans with Disabilities Act and to ensuring the highest level of safety for all our passengers.

Since I was not involved in the previous discussions between the Department and the Authority on this matter, I want to take this opportunity to clearly state the Authority's current position. I have carefully reviewed the Authority's safety record and the voluminous correspondence with the Department on this issue.

There are several factors that make the Metrorail system unique. The flashing lights embedded in the granite edge provide a warning to low vision and hearing impaired individuals -- a feature to my knowledge not offered in any other transit system in this country. Further, the Authority's commitment to uniformity among its platform edges at 80 existing and planned stations is unparalleled in the industry.

Studies indicate that uniformity within one system is perhaps the most important factor in ensuring reliable accessibility and safety for the visually impaired. Given the fact that the law only requires platform edge systems in key and new stations, the visually impaired will inevitably find tremendous differences among platforms edges in other transit systems. Further, the visually impaired will be confounded by the variety of platform edge systems used in transit systems around the country. The Authority has made a commitment far beyond the legal requirement by pledging that we will have an edge treatment that is consistent in all our stations, not simply in key and new stations.

The briefing I have received on the meeting you had with David Gunn indicates that three major approaches were discussed:

1) Promulgating a new rulemaking on this matter, in view of the new information that has come to light. Both Authority and independent studies have revealed additional information on safety concerns, flammability and toxicity test results, and the implications of these products for elderly and mobility impaired individuals. I am enclosing results of the flammability and toxicity tests performed by an independent laboratory for the Authority.

2) Granting the Authority an exemption, based on the uniqueness of Washington Metrorail's current edge detection system and the fact that the Authority has adopted a systemwide approach to platform edge detection. Our commitment to maintain uniformity throughout our system will significantly contribute to the safe passage of the visually impaired throughout this region.

3) Allowing the Authority, as part of our voluntary compliance plan, to enter into an agreement with the Department to perform tests on various platform edge systems, with an understanding that based on the results of the tests the Authority will choose modifications to the existing platform edge system that are acceptable to the Department. As part of our agreement with the Department, we will mutually agree on the edge systems to be tested, the test criteria and the manner in which the tests are to be performed.

I would like to suggest a fourth approach to resolving this issue. I propose that the Authority install in all Metrorail stations either an eight inch strip of flame finish granite that matches our current edge or an eight inch strip of textured granite immediately behind the existing eighteen inch granite edge. Either of these approaches will result in a platform edge system that measures a total of 26 inches. These approaches enable the Authority to preserve the flashing lights, maintain the exceptionally durable granite edge, provide consistency for the visually impaired, and furnish an extra measure of detectability. Further, the Authority's Elderly and Handicapped Advisory Committee, comprised of members of the disability community, has publicly endorsed the use of a wider flame finish granite to resolve this issue.

We intend to have an independent testing laboratory perform detectability tests on the two proposed 26 inch edge systems using the same criteria employed by the Volpe Center in their testing of platform edges. We expect these tests to be completed in six months, at which time we would apply for equivalent facilitation using the results of the tests.

Our preliminary research has led us to conclude that it would be unwise to introduce a new material into our system. Our existing granite platform edge already provides contrasting color and texture to the red-tiled platform finish. To introduce a third material would create unnecessary confusion for the visually impaired. Further, we have found the granite to be the premium paving material for transit systems. Its durability is unequaled by any synthetic material. It is relatively low-maintenance and has a virtually unlimited useful life. We have therefore concluded that we strongly prefer to incorporate the current granite edge material into our compliance effort.

We had been somewhat concerned that Federal Transit Administration (FTA) regulations require a difference in "resiliency" between the platform and the edge. This seemed to indicate that a synthetic edge material is necessary in order to achieve resiliency. However, a recent Federal Transit Administration Report, entitled Interim Summary of FTA's Detectable Warning Program, concludes that "The requirement that detectable warnings on interior surfaces shall differ from adjoining surfaces in resiliency or sound-on-cane contact should be changed to a recommendation." This report also states that "differences in resiliency do not significantly enhance under foot detectability of warning surfaces." This report clearly supports our view that granite is an acceptable platform edge material.

Given our unique platform edge detection system, we are formally requesting an exemption from the truncated domes edge requirement. Metrorail is unique because we have an existing edge detection system that has been in place for nearly 20 years and works well. We have an exemplary safety record with such a small number of falls off the platform that the Volpe Center has said that we don't have enough data in this regard for it to be considered statistically significant.

The unique flashing lights provide a substantial benefit for those with low vision, as well as for the hearing impaired. We've received several comments and inquiries from individuals with these disabilities who strongly advocate maintaining the flashing lights to aid these segments of the disabled community.

The tactile and color contrast between the red paver tiles and the granite edge, coupled with the flashing lights, provide a clear distinction and a proven warning system. As part of our exemption request, we would like to propose that the Authority pledge to:

-- upgrade our station lighting (taking into consideration pertinent recommendations made by the Northern Virginia Council of the Blind);

-- substantially increase our mobility orientation program in order to reach a greater number of visually impaired and other individuals; and

-- develop a comprehensive platform edge cleaning and maintenance program, in order to enhance the color contrast between the granite edge and the red paver tiles.

Our preference among these four approaches is to receive an exemption based upon the unique nature of our existing platform edge system. An exemption would enable the Authority to use limited public resources for many other items of great benefit to the disabled, such as enhanced mobility orientation, upgrading our lighting, installing large type signage, purchasing an advanced electronic display signage system and instituting a comprehensive and continuing platform edge cleaning program.

Should our request for an exemption be denied, we believe the most responsible approach is to install an additional eight inch granite strip with either a flame or textured finish. As part of this alternative approach, we would be willing to provide the enhanced mobility aids discussed above, including improved lighting, additional mobility orientation training and a comprehensive and continuing edge cleaning program.

We strongly urge you to grant us administrative relief through an exemption from this mandate. Alternatively, we request your serious consideration of the addition of an eight inch flame or textured finish granite strip, which would give us a 26 inch platform edge with enhanced detectability.

You have my commitment that it is the intention of the Authority to be in full compliance with the Americans with Disabilities Act on all our existing and new rail stations. We must move forward expeditiously to accomplish that goal. I would appreciate a response prior to April 28, 1994, at which time we intend to seek WMATA Board ratification to proceed with testing. I would also be pleased to meet with you or your staff to discuss this issue further if you wish.

I greatly appreciate the time and effort you have taken to work towards a resolution of this important issue. I look forward to working with you on the many challenging issues we face as we strive to provide quality transit service for the national capital region.

Sincerely,

Lawrence G. Reuter
General Manager

Mr. CARR. Mr. Linton, does the FTA have even a preliminary opinion of WMATA's latest proposal?

[The information follows:]

We are preparing a recommendation to the Secretary, and we will be happy to provide you with a copy of the response to WMATA's proposal.

Mr. CARR. What research is WMATA conducting on its new proposal?

[The information follows:]

WMATA is in the process of contracting with an independent laboratory to test proposed alternative configurations for detectability, including the existing 18″ white granite platform edge, adding 8″ of polished granite to the inside of the existing platform edge, widening it to 26″, and adding 8″ of a textured granite material to enhance detectability, also widening the existing edge to 26″.

Mr. CARR. Is the research being conducted in a controlled experiment, or in an operation environment?

[The information follows:]

The test will be conducted in a laboratory environment in accordance with the protocol used by FTA consultants in determining the detectability of federally-mandated truncated domes.

Mr. CARR. When will the research be completed?

[The information follows:]

Testing should be completed by late summer.

Mr. CARR. What is the estimated cost to WMATA to install the 8-inch granite blocks at each station?

[The information follows:]

The cost to install the 8 inches of granite is estimated to be $140,000 per station and $11 million for the entire system.

WMATA FUNDING NEEDS

Mr. CARR. The President's 1995 budget request for Metro is $200 million. Metro, however, would like an appropriation of $212 million, which would include a shortfall carried over from previous years. Information supplied by Metro officials indicates that the current estimate at completion for the entire fast track program is $30 to $40 million less than the approved budget. In addition, inflation has been less than anticipated in Metro planning documents. It is realized that situations change and much can happen in a multiyear, $2 billion program. However, wouldn't you agree that with those favorable indicators, the $12 million may never be needed?

[The information follows:]

The $12 million is needed in the early years of the construction program to reduce the amount of funding required from the credit facility for awarding contracts and for paying contractors. If these favorable indicators are sustained until completion of the fast track program, the $12.0 million and any savings would be needed to complete the Branch Avenue Yard and to procure additional rail cars.

OPERATING ASSISTANCE

Mr. CARR. The administration's 1995 budget for the Federal Transit Administration reflects a 25 percent decrease in the Federal share provided for transit operating expenses. Under the administration's proposal, how much would WMATA lose in operating expenses compared with the current year?

[The information follows:]

WMATA currently receives federal operating assistance of $16.1 million. A 25 percent reduction in this program would cost WMATA $4.0 million.

Mr. CARR. Before leaving WMATA, your predecessor indicated informally to the Committee that although he didn't like the prospect of losing operating funds, since the administration's proposal would increase capital grants by three times the amount of the operating loss, he felt overall the proposal was beneficial to the authority. In this view, he appears to be in a distinct minority among transit operators. What is your assessment of the administration's proposal and its affect on WMATA?

[The information follows:]

As with many transit authorities, our next fiscal year budget is substantially developed before the administration proposes its budget, and we are well into our fiscal year before the Congress appropriates operating assistance. Thus, sudden reductions in the level of federal operating assistance are incompatible with local financing requirements. Over a longer term, and with sufficient notice, some transit agencies could accommodate such changes, and many would support proposals which increase federal capital contributions at a higher rate than operating assistance is decreased.

Since capital outlay occurs so much slower than operating outlays, the differential in rates may permit as many as eight capital dollars to be appropriated for each operating dollar. To many of us with major capital needs, that would appear to be a good trade. If the budget process would allow it, permitting individual transit agencies to "trade in" eligible operating dollars for a higher number of capital dollars would provide an incentive for agencies to plan their budgets to take advantage of this option. If this were permitted, over time I would expect the amount of federal operating assistance to decline by the choice of the transit authorities.

Mr. CARR. Assuming the President's proposal is adopted without change, does WMATA have a plan in place to make up for the reduced federal operating assistance?

[The information follows:]

WMATA's fiscal year 1995 budget is extremely tight and contains no contingency or reserve funds. In the event that the administration's proposal is adopted, our only options would be to increase fares, reduce service, increase subsidies from the local jurisdictions, or some combinations of these alternatives.

Mr. CARR. The Committee was told last year that the local share of operating assistance in 1994 would be $294 million. This year, your statement indicates that the local share of operating assistance will again be $294 million in 1995. However, the comment appears on page 15 of your statement that "operating costs are projected to increase by $20 million compared to fiscal year 1994 . . ." Are these comments compatible with each other?

[The information follows:]

Yes, while costs have increased by $20 million, revenues are projected to increase approximately the same amount, holding subsidies constant.

LABOR ISSUES

Mr. CARR. Washington Metro has one of the highest paid labor forces in the country, with operators paid, on average, nearly $18 per hour. With overtime added, some Metro operators earn $60,000 or $70,000 annually. Do you agree with those figures?

[The information follows:]

Yes. The top operator rate of $17.64 plus an average longevity increase of 3.5 percent produces an average hourly rate of $18.26.

Mr. CARR. Do you know how Metro operator wage rates compare with those of other authorities across the country?

[The information follows:]

WMATA is presently ranked number seven among bus operators' top hourly wage rates and fifth among train operators' top hourly wage rates. Effective May 1, 1994, a 4 percent wage increase will be applied that will move WMATA's bus operators into third place, and train operators will remain fifth.

Mr. CARR. Including benefits and other compensation, what is the average cost of a fully loaded operator's hour?

[The information follows:]

The top-operator rate of $17.64 plus an average longevity rate 3.5 percent and an additional 34 percent in benefits equals an hourly rate of $24.46.

Mr. CARR. How many of Metro's employees belong to labor unions? When do the current contracts with the unions expire?

[The information follows:]

Approximately 7,500 of WMATA's employees are represented by unions. The current contracts expire as follows: Local 246, I.B.T.—Metro Transit Police—September 30, 1994; Local 689, A.T.U.—April 30, 1995; Local 922, I.B.T.—April 30, 1995; Local 246, I.B.T.—Metro Special Police-September 30, 1995; and Local, 2, O.P.E.I.U. (expired June 30, 1994) is currently in arbitration.

Mr. CARR. How much of Metro's total budget is represented by wages and benefits for employees?

[The information follows:]

In the authority's fiscal year 1995 budget, 77 percent of funding is for personnel cost and related fringe benefits.

STAFFING REDUCTIONS

Mr. CARR. Metro's 1995 staffing proposal indicates a decrease of 233 positions from the 1994 level.

How many of these positions reflect the privatization of bus service in Fairfax County, Montgomery County, and elsewhere, and how much is due to other factors?

[The information follows:]

Of the total reduction of 233 positions, 68 are directly attributable to the takeover of service in Fairfax, 25 due to Montgomery County reductions, and the remainder are largely administrative and reflect the completion of some capital projects.

Mr. CARR. Will Metro have to resort to any furloughs or layoffs to achieve the lower personnel level?

[The information follows:]

Every effort will be made to avoid furloughs or layouts through placement of employees in other positions for which they are qualified and through attrition. However, it appears likely that certain job classifications, particularly bus operators, may require some layoffs to meet staffing requirements.

BUS SERVICE PRIVATIZATION

Mr. CARR. Earlier this year, Fairfax County decided to drop certain Metrobus service and provide similar service with a private contractor. Although the isolated effect of that action may be to save Fairfax County approximately $600,000 annually, the total situation is complicated. Under a complex formula used to allocate costs in the Metrobus system, and reflecting actions by Montgomery County also to privatize certain bus routes results in net savings to Fairfax County of only about $200,000, is that correct?

[The information follows:]

Although Fairfax County would save $600,000 in direct contracting costs, their actual savings are much less, since this figure does not include costs of contract monitoring, supervision, legal costs, planning, insurance, and all of the other indirect costs included in the Metrobus subsidy numbers.

Mr. CARR. Is it also correct that due to the allocation of overhead and other factors Arlington County will wind up paying more for the same level of service?

[The information follows:]

Yes. Under the cost allocation formula, a jurisdiction can incur an increase in Metrobus subsidy without changing the level of service it provides if another jurisdiction reduces its service.

Mr. CARR. How serious a problem is the privatization of bus routes? Your predecessor was quoted in the press as saying: "The whole future of the [Metro] bus system is in jeopardy." Do you agree with his assessment?

[The information follows:]

There is little doubt that Metrobus is at a crossroads. If there are no changes in Metrobuses current costs/procedures/policies there will be continued and probably accelerated expansion of privatization. This continued expansion of privatized local bus services will ultimately result in the disappearance of Metrobus as the regional service provider we see today.

Mr. CARR. During the past five years, which jurisdictions have removed service from the Metrobus system? What has been the net impact of these actions in terms of dollars and people?

[The information follows:]

Over the past five years Alexandria, Fairfax, and Montgomery County have expanded their local bus systems by taking over the operation of selected Metrobus routes or trips. We do not have a record which will provide an estimate of the impact of these takeovers in terms of dollars and people because numerous other actions which occurred generally at the same time as each takeover took place.

Mr. CARR. Are you aware of any other bus routes that members of the Metro community are considering for privatization?

[The information follows:]

Given the impact of the Reston/Herndon takeover and the increasing cost of Metrobus service, a number of jurisdictions are considering expanding their local bus operations or privatizing certain Metrobus routes.

METROBUS FLEET

Mr. CARR. The Metro system operates and maintains some of the oldest buses in the country. What is the current age of the Metro bus fleet and why was it allowed to get so high?

[The information follows:]

The current age of the Metrobus fleet is 10.2 years. The Metro Board has adopted a comprehensive Capital Improvement Program which includes annual purchases of 150 buses per year until the average age is reduced to six years.

Mr. CARR. What is Metro's plan to acquire new buses during the next five or six years?

[The information follows:]

New bus procurement plans are as follows: 1994, 164; 1995, 150; 1996, 150; 1997, 150; and 1998, 100.

Mr. CARR. What assumptions have been made about federal section 9 and local funding to support this acquisition plan?

[The information follows:]

The major portion of the acquisition costs are expected to come from flexible funding provisions of ISTEA and local match on those funds. Only limited section 9 funds will be utilized.

Mr. CARR. What types of buses do you intend to buy? For example, how many will be articulated, how many other than standard 40 foot, how many with low floors, et cetera?

[The information follows:]

Seventy-six (76) of the buses to be procured will be articulated. The balance will be standard forty (40) foot buses. All buses will be lift equipped.

Mr. CARR. Do you intend to purchase standard diesel buses with particulate traps or will you buy alternatively fueled buses? What types of alternatively fueled buses are under consideration?

[The information follows:]

All new bus procurements will specify clean burning diesel engines equipped with catalytic converters. Particulate traps are no longer being manufactured. The Authority is continuing to study the feasibility of alternative fuel buses.

SOUTHEAST BUS GARAGE

Mr. CARR. During last year's hearing there was discussion of the location for a maintenance garage to replace the existing southeast garage. Cost estimates for the various sites ranged up to $80 or $90 million. What is the status of the southeast garage replacement this year? When do you hope to have a site selected?

[The information follows:]

At the present time, WMATA has still not located a site for the replacement Southeast Garage. The Board is scheduled to discuss the issue at the April 28, 1994 meeting, however, the prospect of finding a site in the near future is unknown.

TRANSIT BENEFIT PROGRAM

Mr. CARR. The transit benefit program, which allows up to $60 per month tax free for application toward transit costs, continues in effect. Last year, you indicated that a formal survey would be conducted in the fall of 1993 to determine new rider conversions and participation rates. How many employees using Washington's Metro system do you estimate are beneficiaries of the transit assistance program?

[The information follows:]

The Authority has offered successful workplace transit benefits via its "MetroPool" program to the private sector since 1979.With the expansion of WMATA's MetroPool program to federal workers in July 1991, MetroPool now serves 89 federal agencies and 522 private sector businesses with an estimated 50,000 employees.

"Metrochek", an exchangeable farecard voucher, was added in January 1993 in order to simplify employer administration. Metrochek allows easy employee access to 54 area transit organizations, all through the use of one fare medium. Employees today can access Metrorail, Metrobus, VRE MARC Rail, VPSI or VVPA vanpools, DASH, Ride-On, CUE, Fairfact Connector, MTA buses and many more organizations all through Metrochek.

Mr. CARR. What is your estimate of the additional amount of revenue that Metro is receiving due to the transit benefit program?

[The information follows:]

The Authority has an established revenue goal for fiscal year 1994 for the federal and private MetroPool programs of $7.6 million. As of March 31, 1994 revenue generated from the MertroPool programs is $9.2 million.

On September 1, 1993, the General Accounting Office released its report of the effectiveness of federal transit benefits offered under Section 629(a) of the Treasury, Postal Service and General Government Appropriations Act of 1991, Public Law

101–509. As reported, the federal modal shift of 21 percent is consistent with June 1993 research performed on the private sector by the Washington Metropolitan Area Transit Authority (WMATA). The WMATA data shows a 23.96 percent shift from single-occupancy vehicles to mass transit by private sector employees. Top line results from the WMATA MetroPool participant research as of April 19, 1991 reflects a 21 percent modal shift for the federal and private sector.

With a 21 percent shift to public transportation, the annualized incremental revenue generated from the program is estimated at $1.9 million based on $9.2 million revenues as of March 31, 1994.

Mr. CARR. What other information has been gained from the survey?

[The information follows:]

Top line results from the WMATA MetroPool participant research as of April 19, 1994 are summarized below. In total, 981 completed surveys were returned. The rate of response to this respondent-administered survey was approximately 33 percent.

Of the 981 respondents who participate in the MetroPool program, 588 people (60 percent) said they purchase fare media in the form of Metrochek vouchers.

The vast majority of MetroPool participants (71.4 percent) said they began using the program as soon as it became available at their place of work.

The modes of travel used by survey respondents to commute to and from work prior to joining MetroPool were:

	Percent
Private vehicle	21.8
Metrobus	34.1
Metrorail	69.7

The availability of the MetroPool program had a great deal of influence on the decision to use mass transit for 43.5 percent of these respondents; some influence for an additional 23.5 percent; very little influence for 8.1 percent; and no influence at all for 22.4 percent.

A slight majority (53.9 percent) would continue to use Metrobus/Metrorail at the same level as now, even if the MetroPool program were discontinued, whereas 43.2 percent would reduce their use of Metro services.

A decided majority of survey respondents (76.4 percent) said they have private vehicles at their disposal that they could use for commuting purposes on a regular basis.

SAFETY AND SECURITY

Mr. CARR. During the past year there have been several well publicized incidents of crime at and on Metro facilities, including the first fatality in the system's history. What is your assessment of the recent incidents of crime on the Metro system?

[The information follows:]

Instances of crime remain an anomaly in the Metrorail system, and we believe that both Metrorail and Metrobus remain relatively crime fee and safe for our patrons. In 1993, the statistical probability of a Metrorail passenger becoming a victim of a serious crime was less than 1 in 250,000 passenger trips. However, increases in the overall urban crime rate remain a significant concern, and we are certainly affected by the nature of the broader community.

Mr. CARR. What additional security precautions has Metro undertaken to ensure the safety of its riders?

[The information follows:]

The deployment of officers, both uniformed and plain clothes, is based upon an analysis of criminal activity and objectionable conduct. Bicycle and motorcycle patrols have been added to augment foot beat officers, and are particularly effective in parking areas and around stations.

Mr. CARR. How does Metro compare with other large public transit systems in the country regarding crime incidents?

[The information follows:]

On a serious crime per passenger trip basis, we are twice as safe as New York, almost three times safer than Atlanta, and ten times as safe as BART in San Francisco.

Mr. CARR. Provide statistics for the past five years showing numbers of crimes, by category, committed on Metro vehicles and facilities.

[The information follows:]

This chart lists crimes on Metro facilities for the past five years.

	1989	1990	1991	1992	1993
Part I Crime	1,094	918	1,066	1,056	1,097
Part II Crime	1,473	1,347	1,429	1,462	1,546

Part I Crimes: aggravated assault, arson, burglary, homicide, larceny, motor vehicle theft, rape, robbery

Part II Crimes: All other crimes

CAPITAL IMPROVEMENT PROGRAM

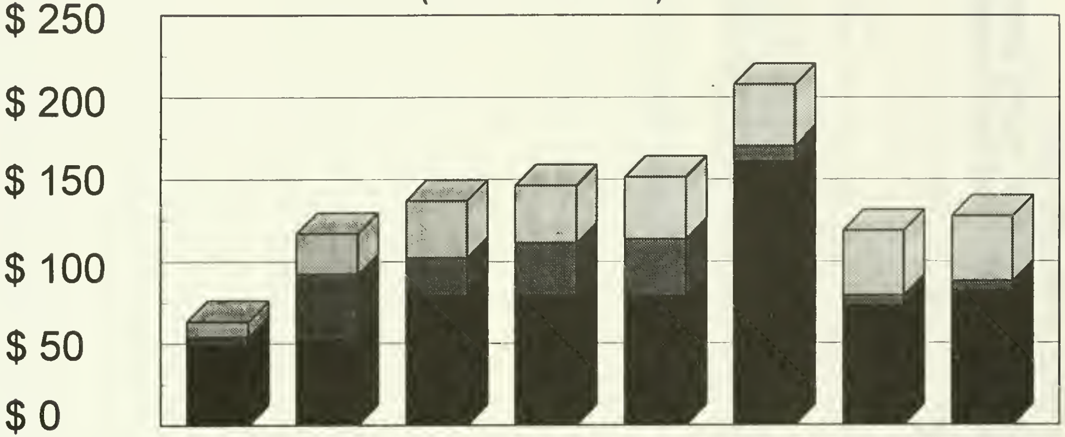
Mr. Carr. Provide an updated chart similar to that appearing on page 1077 of the 1994 hearing volume regarding the capital improvement program.

[The information follows:]

CIP FUNDING

FISCAL 1993-2000

(Dollars in Millions)



	1993	1994	1995	1996	1997	1998	1999	2000
Federal Flexible (or equivalent) Funding (matched) ▨	$9.8	$25.0	$35.0	$35.0	$38.0	$37.9	$40.0	$40.0
Additional Local/Other Funding ■	$5.3	$39.7	$23.2	$32.4	$34.5	$9.0	$6.0	$6.0
Federal Transit Funding (matched) ■	$48.4	$52.3	$78.9	$78.9	$78.9	$161.0	$72.9	$81.7

Note: Federal Transit Funds (matched) in Fiscal 1998 includes $ 52.2 in Grant Anticipation Notes, and Fiscal 1999 and 2000 reflect the payback of these notes.

OPERATING BUDGET

Mr. CARR. Update the table appearing on page 1133 of the 1994 hearing volume concerning WMATA's operating budget.

[The information follows:]

OPERATING BUDGET SUMMARY

(in millions of dollars)

	Fiscal year 1994 Budget				Fiscal year 1995 Budget			
	Cost	Revenue	Non-Operating Expenses	Subsidy	Cost	Revenue	Non-Operating Expenses	Subsidy
Bus	$293.1	$100.5	($0.9)	$191.7	$291.3	$109.1	($1.2)	$181.0
Rail	318.8	228.6	26.9	117.1	338.7	242.7	27.0	123.0
Para Transit	2.1	0.0	0.0	2.1	4.0	0.4	0.0	3.6
Subsidized Construction Management	2.5	0.0	0.0	2.5	1.8	0.0	0.0	1.8
Total - Gross	$616.5	$329.1	$26.0	$313.4	$635.8	$352.2	$25.8	$309.4
Federal Assistance				(16.1)				-16.1
Total				$297.3				$293.3

FAREBOX RECOVERY

Mr. Carr. Update the table appearing on page 1134 of the 1994 hearing volume relating to farebox recovery rates.

[The information follows:]

FAREBOX RECOVERY RATIO

	Fiscal 1994 Budget				Fiscal 1995 Budget			
	Bus	Rail	Para Transit	Total	Bus	Rail	Para Transit	Total
Cost	$293.1	$318.8	$2.1	$614.0	$291.3	$338.7	$4.0	$634.0
Revenue	100.5	228.6	0.0	329.1	109.1	242.7	0.4	352.2
Operating Subsidy	192.6	90.2	2.1	284.9	182.2	96.0	3.6	281.8
Revenue / Cost (percent)	34.3%	71.7%	0.0%	53.6%	37.5%	71.7%	10.0%	55.6%

CARRYOVER FUNDING

Mr. CARR. Provide information regarding carryover funding similar to the data contained on page 1134 of the 1994 hearing volume.

[The information follows:]

The information regarding carryover funding of federal and local funds similar to the data provided last year follows:

89.5 Mile Work:	Millions
Contracts to be awarded	$ 11.8
Project Management for FY '95 & beyond	25.2
Insurance: Management Fee for FY '95 and beyond	19.4
System Start-up	.5
Claims	44.6
Modifications and contract closeouts	3.8
Total 89.5 Mile Work (Federal & Local Funds)	$ 105.3

103 Mile Work:	
Van Dorn to Franconia-Springfield	$ 78.9
Wheaton to Glenmont	43.3
U Street to Fort Totten	141.1
Anacostia to Branch Avenue	93.2
Total 103 Mile Work (Federal & Local Funds)	$ 356.5*

*The fiscal 1994 grants were approved by the FTA in February 1994. By July 1, 1994, we anticipate obligating all of the carryover funds plus using a credit facility to implement the fast track program.

COMPARATIVE BUS OPERATIONS

Mr. CARR. Please update the information appearing on page 1135 of the 1994 hearing volume concerning comparative bus operations. If it is available, please include such data for additional authorities.

[The information follows:]

TRANSIT SYSTEMS	VEHICLES OPERATED IN MAXIMUM SERVICE		TOTAL OPERATING EXPENSE (DOLLARS)						VEHICLE MAINTENANCE EXPENSE PER REVENUE VEHICLE MILES	
			PER REVENUE VEHICLE HOURS		PER UNLINKED PASSENGER TRIP		PER EMPLOYEE			
	1992	1991	1992	1991	1992	1991	1992	1991	1992	1991
SCRTD - LOS ANGELES	1897	1968	87.3	71.3	1.5	1.2	74615	65234	1.7	1.6
CTA - CHICAGO	1791	1796	69.1	49.8	1.3	0.9	70082	49722	1.6	1.2
MBTA - BOSTON	753	755	84.4	98.4	2.0	1.9	79921	67708	1.7	1.7
NJT - NEWARK	1527	1551	83.6	72.5	3.0	2.5	86179	64867	1.2	0.9
NYCTA - NEW YORK	3050	2963	85.5	72.7	1.5	1.2	68687	56440	2.6	2.5
SEPTA - PHILADEPHIA	1120	1097	79.6	42.0	1.6	0.8	63625	35671	1.3	1.1
PAT PITTSBURGH	749	730	69.1	53.3	1.9	1.4	53373	47050	1.0	0.9
METRO - SEATTLE	911	840	109.2	69.5	2.9	1.8	63920	41229	1.3	1.2
WMATA - WASH, D.C.	1436	1441	82.1	81.1	1.7	1.6	66224	55162	1.3	1.3
RANKINGS	(6)	(5)	(6)	(2)	(4)	(4)	(6)	(5)	(5)	(4)

CAPITAL FUNDING SOURCES

Mr. CARR. Please update the data appearing on 1136 of the 1994 hearing volume concerning the sources of WMATA's capital funding budget.

[The information follows:]

	Fiscal year		
	1994	1995 President's budget	WMATA 1995 request
Stark-Harris	$0.2	$0.0	$0.0
Reauthorization	199.8	200.0	212.0
Less project management oversight	(1.0)	(1.0)	(1.1)
Bus and rail improvements—section 9/3	63.8	63.1	63.1
Total Federal	262.8	262.1	274.0
Local match	135.3	135.2	142.4
Total	398.1	397.3	416.4

FISCAL YEAR 1995 CONSTRUCTION PROGRAM

Mr. CARR. Please provide information on the fiscal year 1995 proposed construction program similar to that displayed on page 1136 of the 1994 hearing volume.

[The information follows:]

The fiscal 1995 program is made up of $212 million from the reauthorization for work to complete the 103-mile system plus local match and a credit facility to implement the fast track program.

103 Mile Work:	*Millions*
Project Management	$36.1
Design:	
Glenmont	.7
Construction:	
Van Dorn to Franconia-Springfield	15.0
Wheaton to Glenmont	31.4
U Street to Fort Totten	93.2
Anacostia to Branch Avenue	79.4
Total	255.8

RAIL CONSTRUCTION OBLIGATIONS

Mr. CARR. Please update the table appearing on page 1136 of the 1994 hearing volume concerning obligations for rail construction.

[The information follows:]

The annual and cumulative obligations since the start of the rail construction program are:

[In millions of dollars]

Calendar year	Annual	Cumulative
1969	$87.9	$87.9
1970	126.1	214.0
1971	285.8	499.8
1972	513.1	1,012.9
1973	318.9	1,331.8
1974	510.9	1,842.7
1975	395.7	2,238.4
1976	427.4	2,665.8
1977	324.1	2,989.9
1978	336.5	3,326.4
1979	328.4	3,654.8
1980	359.4	4,014.2

[In millions of dollars]

Calendar year	Annual	Cumulative
1981	430.9	4,445.1
1982	222.7	4,667.8
1983	291.1	4,958.9
1984	169.4	5,128.3
1985	350.5	5,478.8
1986	208.3	5,687.1
1987	301.3	5,988.4
1988	394.7	6,383.1
1989	302.2	6,685.3
1990	246.2	6,931.5
1991	150.7	7,082.2
1992	142.6	7,224.8
1993	284.2	7,509.0

STATE AND LOCAL CONTRIBUTIONS

Mr. CARR. Please update the table appearing on page 1137 of the 1994 hearing volume concerning state and local funding contributions.

[The information follows:]

TOTAL STATE/LOCAL CONTRIBUTIONS

[In millions of dollars]

Fiscal year	Rail [1] construction program	Capital improvements	Operating [2] assistance	Debt service	Total
1985	$47.5	$6.5	$164.4	$27.5	$245.9
1986	36.4	4.3	179.7	27.5	247.9
1987	31.3	9.2	188.0	27.5	256.0
1988	25.7	7.6	195.7	[3] 27.5	256.5
1989	22.0	6.4	209.9	27.5	265.8
1990	6.1	7.3	220.8	27.5	261.7
1991	7.0	7.3	245.6	27.5	287.4
1992	57.3	7.6	251.5	27.5	343.9
1993	91.9	9.5	254.5	27.5	383.4
1994	119.3	17.7	265.5	27.5	430.0
1995	126.6	30.7	277.5	27.5	462.3

[1] Net of WMATA investment earnings.

[2] Net of Federal operating assistance.

[3] Net of WMATA investment earnings applied to the $2.5 million Federal shortfall.

LOCAL CONTRIBUTIONS

Mr. CARR. Please update the table concerning contribution by jurisdiction, similar to the information appearing on page 1138 of the 1994 hearing volume.

[The information follows:]

LOCAL CONTRIBUTIONS

(IN THOUSANDS OF DOLLARS)

	RAIL CONSTRUCTION	DEBT SERVICE	CAPITAL PROGRAM	OPERATING ASSISTANCE	TOTAL
DISTRICT OF COLUMBIA	$396,370	$128,881	$53,627	$1,561,792	$2,140,670
MONTGOMERY COUNTY	$222,908	$63,405	$14,601	$471,386	$772,300
PRINCE GEORGE'S COUNTY	$168,814	$63,476	$14,552	$437,930	$684,772
ALEXANDRIA	$50,852	$17,378	$6,717	$160,444	$235,391
ARLINGTON COUNTY	$98,821	$33,577	$9,034	$254,635	$396,067
FAIRFAX CITY/NVTC	$11,876	$616	$322	$6,839	$19,653
FAIRFAX COUNTY	$123,075	$38,823	$13,875	$512,226	$687,999
FALLS CHURCH	$1,623	$502	$483	$11,393	$14,001
TOTAL	$1,074,339	$346,658	$113,211	$3,416,645	$4,950,853

OPERATING ASSISTANCE

Mr. CARR. Provide information on operating assistance for the last 12 years, indicating the amount of the annual percentage increase from year to year.

[The information follows:]

OPERATING ASSISTANCE OVER THE PAST 12 YEARS

Fiscal year	In millions of dollars	Percent increase
1983	$175.9	
1984	184.7	5.0%
1985	182.9	−1.0
1986	197.6	8.0
1987	205.9	4.2
1988	212.0	3.0
1989	226.1	6.7
1990	236.9	4.8
1991	261.7	10.5
1992	267.6	2.3
1993	270.6	1.1
1994	281.6	4.1

PERFORMANCE INDICATORS

Mr. CARR. Please update the charts appearing on pages 1139 through 1140 of the 1994 hearing volume concerning WMATA's Metrobus and Metrorail operations indicators.

[The information follows:]

METRORAIL STATISTICS

For the Fiscal Years 1990 through 1995

	1990 ACTUAL	1991 ACTUAL	1992 ACTUAL	1993 ACTUAL	1994 BUDGET	1995 APPROVED
STATISTICS:						
Total Car Miles (000s)	38,339	42,228	42,614	42,426	44,373	45,757
Revenue Car Miles (000s)	36,322	40,530	40,452	41,501	42,828	44,196
Total Passengers (000s)	145,025	147,077	145,446	148,347	149,524	159,093
Total Operating Cost (000s)	$243,978	$261,126	$286,722	$301,299	$318,846	$338,776
Total Operating Revenue (000s)	$186,126	$189,251	$209,303	$223,556	$228,604	$242,703
Total Operating Assistance (000s)	$57,852	$71,875	$77,419	$77,743	$90,242	$96,072
Total Passenger Revenue (000s)	$170,899	$173,369	$195,856	$209,818	$213,604	$226,691
RATIOS:						
Passengers Per Scheduled Car Mile	3.99	3.63	3.60	3.57	3.49	3.60
Cost Per Scheduled Car Mile	$6.72	$6.44	$7.09	$7.26	$7.44	$7.67
Cost Per Passenger	$1.68	$1.78	$1.97	$2.03	$2.13	$2.13
Average Passenger Fare	$1.18	$1.18	$1.35	$1.41	$1.43	$1.42
Operating Assistance Per Passenger	$0.40	$0.49	$0.53	$0.52	$0.60	$0.60
Percent of Operating Assistance to Total Cost	24%	28%	27%	26%	28%	28%
Percentage of Passenger Revenue to Total Cost	70%	66%	68%	70%	67%	67%
Percentage of Total Revenue to Cost	76%	72%	73%	74%	72%	72%

METROBUS STATISTICS

For The Fiscal Years 1990 Through 1995

	1990 ACTUAL	1991 ACTUAL	1992 ACTUAL	1993 ACTUAL	1994 BUDGET	1995 APPROVED
STATISTICS:						
Total Bus Miles (000s)	50,260	51,350	50,154	47,930	46,998	45,197
Scheduled (budget) Bus Miles (000s)	51,152	52,322	50,782	47,246	46,076	44,295
Total Passengers (000s)	140,295	140,391	136,051	132,340	132,610	129,053
Bus Fleet Size (Year End) 1/	1,706	1,752	1,564	1,599	1,467	1,379
Scheduled Buses (Maximum)	1,396	1,436	1,361	1,333	1,305	1,227
Total Operating Cost (000s)	$275,065	$287,655	$291,872	$290,589	$293,081	$291,285
Total Revenue (000s)	$96,102	$95,682	$100,653	$98,743	$100,521	$97,617
Total Operating Assistance (000s)	$178,963	$191,973	$191,219	$191,846	$192,560	$193,668
Total Passenger Revenue (000s)	$88,722	$89,539	$93,880	$92,080	$93,581	$89,959
RATIOS						
Passengers Per Scheduled Bus Mile	2.74	2.68	2.68	2.80	2.88	2.91
Passengers Per Scheduled Bus	100,498	97,765	99,964	99,280	101,617	105,178
Cost Per Total Bus Mile	$5.47	$5.60	$5.82	$6.06	$6.24	$6.44
Cost Per Passenger	$1.96	$2.05	$2.15	$2.20	$2.21	$2.26
Average Passenger Fare 2/	$0.63	$0.64	$0.69	$0.70	$0.71	$0.70
Passenger Revenue Per Scheduled Mile	$1.73	$1.71	$1.85	$1.95	$2.03	$2.03
Operating Assistance Per Passenger	$1.28	$1.37	$1.41	$1.45	$1.45	$1.50
Operating Assistance Per Bus-Total Fleet	$104,902	$109,574	$122,263	$119,979	$131,261	$140,441
Percent of Operating Assistance to Total Cost	65%	67%	66%	66%	66%	66%
Percentage of Passenger Revenue to Total Cost	32%	31%	32%	32%	32%	31%
Percentage of Total Revenue to Cost	35%	33%	34%	34%	34%	34%

1/ Ready Reserve Included

2/ Average is lower than base fare due to transfers and flash pass impact.

BUS FLEET

Mr. CARR. Please update the table portrayed on page 1141 of the 1994 hearing volume regarding the bus fleet inventory.

[The information follows:]

BUS FLEET INVENTORY

	Fiscal year				
	1990	1991	1992	1993	1994
Total bus fleet	1,606	1,658	1,564	1,492	1,450
Scheduled buses	1,396	1,441	1,361	1,327	1,290
Buses available for spares	210	217	203	165	160
Spare ratio	15.0	15.0	14.9	12.4	12.4

RIDERSHIP DATA

Mr. CARR. Please update the rail and bus ridership data depicted on page 1142 of the 1994 hearing volume.

[The information follows:]

AVERAGE WEEKDAY RIDERSHIP

	RAIL	BUS
January 1988	464,100	439,700
January 1989	501,600	446,200
January 1990	498,000	444,400
January 1991	507,000	444,000
January 1992	491,000	453,000
January 1993	532,000	462,000
January 1994	472,000	379,000
Growth: 1993-1994	-60,000	-83,000
Percent growth/loss	-11.3%	-18.0%
March 1993	508,000	442,000
March 1994	543,000	453,000
Growth: 1993-1994	35,000	12,000
Percent growth	+6.9%	+2.5%
Fiscal year:		
1993 average weekday ridership thru March	506,000	442,000
1994 average weekday ridership thru March	513,000	431,000
Growth	7,000	-11,000
Percent growth	+1.4%	-2.5%

ANNUAL RIDERSHIP BY FISCAL YEAR

	Metrobus	Metrorail	Total Transit
1988 Actual	138,635,000	136,670,000	275,305,000
1989 Actual	139,456,000	144,013,000	283,469,000
1990 Actual	140,295,000	145,025,000	285,320,000
1991 Actual	140,391,000	147,077,000	287,468,000
1992 Actual	136,051,000	145,446,000	281,497,000
1993 Actual	132,340,000	148,347,000	280,687,000
1994 Estimate	132,610,000	149,524,000	282,134,000
1995 Estimate	129,053,000	159,093,000	288,146,000

The percent ridership loss between January 1993 and January 1994 is 11.3 percent on rail and 18.0 percent on bus. The substantial ridership losses are due to the inclement weather (snow, ice and sleet) this January, and the resultant closing of government and private businesses on several occasions. Also, the presidential inaugural was held in January 1993, which artificially inflated last year's ridership numbers.

A comparison is shown for March 1993 and March 1994, as these were two normal months not affected by inclement weather or special events.

RAISED EDGE PLATFORMS

Mr. DELAY. The Washington Post reports that visually impaired organizations are split on the benefits of the new raised edge systems. Some feel that the existing system is adequate and others feel that the new raised, bright colored system is necessary and would be a benefit. The decision will cost WMATA millions. How much will this decision cost WMATA if the retrofit takes place only on the key stations of the system? And, how much will this decision cost WMATA if the retrofit is completed on all 89 stations?

[The information follows:]

We have estimated the cost for installing several different ADA tactile surface materials. Depending on the material and application method considered, the total cost identified for the 89 platforms in the 103 mile system range from $7 to $11 million for overlays and $33 to $56 million for recessed installations.

The comparable cost for the installation at 45 key stations would be $4 to $6 million for overlays to $18 to $30 million for recessed installations. The estimated cost is based on installing a 2′ nominal width of surface for both edges of the standard 600′ long stations.

WMATA's installation cost estimates include design, preparation of platforms, procurement and installation of materials, and project management. The cost estimates take into account the requirement that this work must be performed only during non-revenue hours, in extremely limited work windows. Estimates of the labor cost for these installations reflect the restricted work hours.

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL TRANSIT ADMINISTRATION

FISCAL YEAR 1995

BUDGET ESTIMATES

SUBMISSION TO CONGRESS

GENERAL STATEMENT

During the mid-1990's, a number of national, social, economic, and environmental policies and mandates will require significantly increased expenditures in public transportation in the United States. These policies and mandates include: increased investment in infrastructure to revitalize the transit industry, reduced traffic congestion to make the American economy more productive, mitigation of air pollution, development of viable communities, and provision of accessible transportation for disabled individuals.

The Federal Transit Administration (FTA) will need to continue long-term investment in mass transit infrastructure, begun in FY 1994, designed to revitalize a deteriorated transit industry and provide safer, more efficient transit service. This investment will provide additional jobs for Americans.

This budget will help bring transit system development in our cities into the 21st century. There is a need to change the mind-set of the country toward a better understanding of the value of transit-- its economic as well as clean-air benefits, thus the development of transit systems should be woven into the development of livable cities and communities. This budget contains a new program activity focusing transit on shaping the cities of the future by incorporating zoning, land use and urban design principles into redevelopment of older urban cores and development of new non-urban satellite communities. This focus will be on integrating transit services into community development through a strengthened planning process, to provide transportation services to increase access to jobs, training, education, and health care, thus making transit systems more accessible and user friendly; a better alternative to driving alone.

The Federal Highway Administration (FHWA) estimates, in its 1993 report on the status of conditions and performance of the Nation's highway systems, that increases in highway capacity cannot keep pace with the increase in travel demand, especially in the urban areas. In fact, FHWA reports that 83,000 lane-miles of urban highway capacity cannot be built, over the next 20 years, because of various constraints on new highway construction. Well-chosen mass transportation investments can play a major role in meeting a portion of the estimated annual 627 billion passenger miles in unmet travel demand. The sustained investment in mass transit reflected in this budget lays the foundation for meeting this challenge.

The Clean Air Act (CAA) Amendments of 1990 require that transit buses meet new, stricter particulate emission standards, and that transportation projects in nonattainment areas reduce pollution. FTA will help to meet these emission standards with alternative fueled vehicles and facilities that are estimated to cost an additional $660 million a year to acquire, operate and maintain.

In addition, in this budget transit will be the forerunner in focusing on alternatives that will mitigate traffic congestion. In FY 1995, the Federal Transit Administration section 9 Urban Formula Grants program will emphasize projects that meet the requirements of the Traffic Congestion Management Systems plan called for in section 1034 of the Intermodal Surface

Transportation Efficiency Act (ISTEA) of 1991. This initiative will focus resources on implementing appropriate strategies to help reduce traffic congestion in urban areas, giving greater consideration of transit projects because transit may be the only alternative to alleviate the traffic congestion, reduce pollution, and increase productivity. All factors combine to help make this Nation more competitive in the world markets.

The Americans with Disabilities Act (ADA) of 1990, a Federal mandate, has far-reaching transportation requirements. Estimated costs associated with accessible vehicle purchases, complementary paratransit service, and rehabilitation of key rapid, light and commuter rail stations are close to $1 billion annually. In this budget the FTA has increased formula grants funds by 19 percent over the previous year to assist local transit authorities in meeting these requirements.

To meet these requirements the FTA requests $4.8 billion in FY 1995 budgetary resources. This is the highest funding level in the history of the Federal transit assistance program, in recognition of transit's role in meeting the urban mobility and environmental challenges of the present and future.

HIGHLIGHTS

Highlights of FTA's FY 1995 budget request are as follows:

- Administrative Expenses. The request of $43.1 million includes an increase of 20 full-time equivalent (FTE) employment above the FY 1994 level to expand planning, grant making and oversight activities, to implement legislative mandates more effectively, and to improve civil rights compliance.

  Recent legislation and other initiatives have dramatically increased FTA's workload:

  - American with Disabilities Act. Each year, FTA is expected to annually review 540 ADA paratransit service plans detailing the capital and operating costs of providing complementary paratransit services. FTA will also monitor the implementation of these plans and those for over 700 key rail stations.

  - Clean Air Act Amendments. FTA is expected to conduct over 125 conformity reviews annually to ensure those transportation plans or projects comply with State Implementation Plans and meet the Environmental Protection Agency's air quality standards in areas classified as nonattainment.

  - The ISTEA expands the requirements of the FTA and FHWA to oversee the planning process and requires certification of the metropolitan planning process in Transportation Management Areas (TMA) at least once every 3 years. The FTA estimates that approximately 45 TMAs will be reviewed annually by FTA and FHWA.

  - The anticipated implementation of drug and alcohol testing regulations combined with annual reporting requirements.

  - FTA will need to continue its grants management oversight program. FTA staff will be working on-site directly with contractors on Triennial Reviews, reviewing grantees that are "high risk," and conducting more frequent procurement and financial management systems reviews.

- Interstate Transfer Grants - Transit. An amount of $38.5 million is requested to complete the Federal share of funding for all transit projects substituted for withdrawn Interstate Highway segments.

- Washington Metro. The request for $200 million in general fund appropriations will permit the Washington Metropolitan Area Transit Authority (WMATA) to continue on its "fast track" program for completion of the remaining 13.5 miles of the 103-mile authorized system. The "fast track" is expected to save $600 million to $700 million in inflationary costs due to an accelerated construction schedule.

- Formula Grants. A total of $2.87 billion is requested for formula grants to provide for routine bus and railcar purchases, maintenance facility construction and improvement, and to help meet the capital and operating needs of the ADA and the CAA. From these funds, $2.65 billion would be used for section 9 - Urban Formula Grants. Under the section 9 urban formula program 10 percent will be set aside from each area's apportionment for Congestion Relief Transit Incentive Grants. This activity will require each area to certify that the funds in its incentive grant will be used for congestion mitigation activities, including transportation demand management, improved or additional transit service, and other transit investment. For section 18 - Nonurban Formula Grants $154.2 million will be available, and $61.1 million for section 16 - Elderly and Disabled Persons. Section 9 operating assistance would be reduced to $600 million. This reduction is more than offset by the $625 million increase in section 9 capital grants proposed as part of the Administration's investment priority. As a result, all urban areas will receive a net increase of approximately 19 percent in formula grants in FY 1995. The proposed increase in capital funding will allow state and local governments to make trade-offs in support of transit operating expenses, as necessary.

- University Transportation Centers. An appropriation of $6 million is requested, the same as in FY 1994, for the section 11(b) University Transportation Centers program. FHWA will also provide $6 million in FY 1995 for a total of $12 million.

- Transit Planning and Research. A total of $92.3 million is requested for FTA's transit planning and research activities. This requested level is the same as the FY 1994 enacted level and holds FTA's commitment to planning and research at a stable level. As outlined in ISTEA, $41.5 million would be made available for section 8 grants to the States for use by Metropolitan Planning Organizations to assist in implementing the additional planning requirements in ISTEA. To provide adequate resources for rural training and technical assistance, $4.6 million is requested for the section 18(h) Rural Transit Assistance Program. To assist in statewide planning and research, $8.5 million is requested for the section 26(a) State Planning and Research Program. To help meet the needs of transit industry directed research, $8.5 million is requested for the Transit Cooperative Research Program. We are requesting $26.2 million for the National Planning and Research Program to fund FTA's research program, policy studies, and information management. A total of $3 million is requested for the National Transit Institute to help meet the industry's training needs.

Within the National Program we will focus funds to develop and demonstrate new technologies to improve the effectiveness of capital investments, thus providing more efficient and useful transit service. This supports the President's initiatives to advance U.S. technology. These projects will maximize the opportunities of transferring existing military technology in areas such as advanced materials and communications to the transit industry to provide passenger "friendly" transit. In addition, these funds will continue to further the technology needs to support the implementation of the ADA and the Clean Air Act.

- Discretionary Grants. A total of $1.5 billion is requested for the section 3 Discretionary Grants program. This will make available $30 million for the new Livable Communities initiative, $760 million for Fixed Guideway Modernization, $400 million for New Fixed Guideways (New Starts), and $327 million for Bus and Bus-Related projects. This level continues the support begun in FY 1994 for increased funding to address the significant backlog of deferred investment in the Nation's older rail systems. Also at this level, New Starts systems that are under Full Funding Grant Agreements (FFGA) will receive stable and reliable funds to speed up construction schedules, saving Federal dollars, and providing transit service earlier to alleviate congestion and air pollution. This amount would be sufficient to fund projects under existing FFGAs.

  In addition, under the Discretionary Grants program and the Transit Planning and Research program, resources will be targeted to help revitalize American cities. Our Livable Communities Initiative will target resources to shaping the cities of the future by incorporating zoning, land use and urban design principles into redevelopment of older urban cores and development of new non-urban satellite communities. The focus will be on integrating transit services into community development through a strengthened planning process, to provide transportation services to increase access to jobs, training, education, and health care, thus making transit systems more accessible and user friendly; a better alternative to driving alone.

EXHIBIT 1A

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($ in thousands)

APPROPRIATION TITLE	BUDGET AUTHORITY FY 1993 Actual	 FY 1994 Enacted	 FY 1995 Request
Administrative Expenses	38,245	39,457	43,060
General Fund	(13,095)	(21,295)	(43,060)
Trust Fund Share	(25,150)	(18,162)	...
Interstate Transfer Grants – Transit			
General Fund	75,000	45,000	38,530
Washington Metrorail			
General Fund	170,000	200,000	200,000
Formula Grants	1,700,000	2,414,867	2,865,050
General Fund	(650,975)	(1,284,916)	(1,715,050)
Trust Fund Share	(1,049,025)	(1,129,951)	(1,150,000)
University Transportation Centers	6,000	6,000	6,000
General Fund	(2,025)	(3,238)	(6,000)
Trust Fund Share	(3,975)	(2,762)	...
Transit Planning and Research	85,000	92,250	92,250
General Fund	(29,000)	(48,125)	(92,250)
Trust Fund Share	(56,000)	(44,125)	...
Discretionary Grants			
Trust Fund (Contract Authority)	1,725,000	1,785,000	1,725,000
Trust Fund Share of Transit Programs			
Trust Fund (Contract Authority)	[1,150,000]	[1,190,000]	[1,150,000]
TOTALS, BUDGET AUTHORITY	3,815,095	4,577,574	4,969,890
General Funds	940,095	1,602,574	2,094,890
Trust Funds (Contract Authority)	2,875,000	2,975,000	2,875,000
Rescission Proposal:			
Discretionary Grants			
Trust Fund (Contract Authority)	...	(50,538)	...

EXHIBIT 1B

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($ in thousands)

APPROPRIATION TITLE	PROGRAM LEVEL FY 1993 Actual	 FY 1994 Estimate	 FY 1995 Request
Administrative Expenses	38,213	39,457	43,060
General Fund	(13,063)	(21,295)	(43,060)
Trust Fund Share	(25,150)	(18,162)	...
Research, Training and Human Resources			
General Fund	8,411	1,578	...
Interstate Transfer Grants -- Transit			
General Fund	78,678	77,622	38,530
Washington Metrorail			
General Fund	171,079	200,328	200,000
Formula Grants	1,855,784	2,405,203	2,965,050
General Fund	(806,759)	(1,275,252)	(1,815,050)
Trust Fund Share	(1,049,025)	(1,129,951)	(1,150,000)
University Transportation Centers	2,025	9,975	6,000
General Fund	(2,025)	(3,238)	(6,000)
Trust Fund Share	0	(6,737)	...
Transit Planning and Research	39,362	151,955	92,250
General Fund	(24,720)	(53,559)	(92,250)
Trust Fund Share	(14,642)	(98,396)	...
Miscellaneous Expired Accounts			
General Fund	...	22	...
Discretionary Grants	1,833,747	1,867,667	1,925,000
Trust Fund (Contract Authority)	1,833,747	1,918,205	1,925,000
Rescission Proposal	...	(50,538)	...
Trust Fund Share of Transit Programs			
Trust Fund (Contract Authority)	[1,150,000]	[1,190,000]	[1,150,000]
TOTALS, PROGRAM LEVEL	4,027,299	4,753,807	5,269,890
General Funds	1,104,735	1,632,894	2,194,890
Trust Funds (Contract Authority)	2,922,564	3,120,913	3,075,000
OBLIGATION LIMITATIONS (New Budget Authority):			
Discretionary Grants	1,725,000	1,785,000	1,517,000
Trust Fund Share of Transit Programs	1,134,150	1,195,000	1,150,000

EXHIBIT 1C

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESOURCE SUMMARY - FINANCING
($ In thousands)

	OUTLAYS		
APPROPRIATION TITLE	FY 1993 Actual	FY 1994 Estimate	FY 1995 Request
Administrative Expenses	17,881	17,350	42,700
Research, Training and Human Resources	10,815	13,683	9,385
Interstate Transfer Grants -- Transit	162,947	111,768	78,261
Washington Metrorail	149,361	189,259	147,534
Formula Grants	1,190,908	256,870	700,605
University Transportation Centers	...	(2,837)	4,920
Transit Planning and Research	1,139	(53,512)	74,340
Miscellaneous Expired Accounts	8,375	29,204	21,154
Discretionary Grants	1,298,070	1,449,842	1,607,564
Trust Fund (Contract Authority)	1,298,070	1,450,853	1,612,618
Rescission Proposal	...	(1,011)	(5,054)
Trust Fund Share of Transit Programs (Contract Authority)	617,591	1,711,559	1,150,000
Administrative Expenses	(25,150)	(18,162)	...
Formula Grants	(590,712)	(1,588,264)	(1,150,000)
University Transportation Centers	...	(6,737)	...
Transit Planning and Research	(1,729)	(98,396)	...
TOTALS, OUTLAYS	3,457,087	3,723,186	3,836,463
General Funds	1,541,426	561,785	1,078,899
Trust Funds (Contract Authority)	1,915,661	3,161,401	2,757,564
LIQUIDATING CASH APPROPRIATIONS:			
Discretionary Grants	1,500,000	1,000,000	1,500,000
Trust Fund Share of Transit Programs	1,134,150	1,195,000	1,150,000

EXHIBIT IIA

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESOURCE SUMMARY - STAFFING

	POSITIONS (FULL-TIME PERMANENT)		
DIRECT FUNDED, BY APPROPRIATION	FY 1993 Actual	FY 1994 Estimate	FY 1995 Request
Administrative Expenses	167	260	496
REIMBURSEMENTS* *Trust Fund Share of Transit Programs	320	220	...
TOTALS, POSITIONS	487	480	496
Allocations to Other Agencies	...	...	...

EXHIBIT IIB

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESOURCE SUMMARY - STAFFING

	(FTE TOTAL)		
DIRECT FUNDED, BY APPROPRIATION	FY 1993 Actual	FY 1994 Estimate	FY 1995 Request
Administrative Expenses	172	264	504
REIMBURSEMENTS*	320	220	...
*Trust Fund Share of Transit Programs			
TOTALS, FTE - TOTAL, SUBJ. TO CEILING	473	466	486
Ceiling: FTE-FTP	463	456	476
Ceiling: FTE-OTFTP	10	10	10
NON-CEILING FTE TOTALS	19	18	18
Ceiling: FTE-FTP	...	...	...
Ceiling: FTE-OTFTP	19	18	18
FTE GRAND TOTALS	492	484	504
FTE - FTP	463	456	476
FTE - OTFTP	29	28	28
Allocations to Other Agencies	...	...	...

APPROPRIATION LANGUAGE

General Provisions

Sec. [313] *312.* The limitation on obligations for the programs of the Federal Transit Administration shall not apply to any authority under section 21 of the Federal Transit Act, previously made available for obligation, or to any other authority previously made available for obligation under the Discretionary Grants program.

[Sec. 314. None of the funds in this Act shall be available for the construction of, or any other costs related to, the Central Automated Transit System (Downtown People Mover) in Detroit, Michigan.]

Sec. [326] *319.* Notwithstanding any other provision of law, and except for fixed guideway modernization projects, funds made available by this Act or previous Acts under "Federal Transit Administration, Discretionary Grants" for projects specified in this Act or previous Acts or identified in reports accompanying this Act or previous Acts [not obligated by September 30, 1996, shall be made available for other projects under section 3 of the Federal Transit Act, as amended] *shall be available for a period of two years following the close of the fiscal year in which such sums were appropriated. Any such amounts remaining unobligated at the end of such period shall be rescinded.*

Sec. 321. Notwithstanding any other provision of law, any funds appropriated before October 1, 1993, under any section of the Federal Transit Act, as amended, that remain available for expenditure may be transferred to and administered under the most recent appropriation heading for such section. (Department of Transportation and Related Agencies Appropriations Act, 1994.)

[Sec. 336. Monies previously appropriated for the Chattanooga fixed rail project out of the section 3 "New Construction" account shall be made available for the Chattanooga electric vehicle project through the "Bus and Bus Facilities" account.]

[Sec. 337. Funds previously appropriated for Project Breakeven in Portland, Oregon may, upon application by Tri-Met to the Federal Transit Administration, be expended on the Westside Light Rail Project in the Portland metropolitan region.]

APPROPRIATION LANGUAGE

ADMINISTRATIVE EXPENSES

For necessary administrative expenses of the Federal Transit Administration's programs authorized by the Federal Transit Act and 23 U.S.C. chapter 1 in connection with these activities, including hire of passenger motor vehicles and services as authorized by 5 U.S.C. 3109, [$21,295,000: *Provided,* That no more than $39,457,000 of budget authority shall be available for these purposes] *$43,060,000. (Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
ADMINISTRATIVE EXPENSES
Program and Financing (In thousands of dollars)

Identification code: 69-1120-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Program by activities:			
00.01 Direct program	13,051	21,295	43,060
01.01 Reimbursable program	25,162	18,162	...
10.00 Total obligations	38,213	39,457	43,060
Financing:			
25.00 Unobligated balance expiring	44	...	...
39.00 Budget authority (gross)	38,257	39,457	43,060
Budget authority:			
Current:			
40.00 Appropriation	13,095	21,295	43,060
Permanent:			
68.00 Spending authority from offsetting collections	25,162	18,162	...
Relation of obligations to outlays:			
71.00 Total obligations	38,213	39,457	43,060
72.40 Obligated balance, start of year	3,223	3,227	7,172
74.40 Obligated balance, end of year	(3,227)	(7,172)	(7,532)
77.00 Adjustments in expired accounts	4,834	...	...
87.00 Outlays (gross)	43,043	35,512	42,700
Adjustments to budget authority and outlays:			
Deductions for offsetting collections:			
88.00 Federal funds	(25,162)	(18,162)	...
89.00 Budget authority (net)	13,095	21,295	43,060
90.00 Outlays (net)	17,881	17,350	42,700

PROGRAM AND PERFORMANCE STATEMENT

ADMINISTRATIVE EXPENSES

For 1995, $43 million is requested to fund the personnel and other support costs associated with managing and directing FTA program responsibilities including executive direction, policy, budget, financial management, civil rights, public affairs, legal, grants delivery and management, technical assistance and research and demonstration support. Increased funding provides for a net increase of 20 FTE to improve critical planning and grants management activities.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
ADMINISTRATIVE EXPENSES
OBJECT CLASSIFICATION
(in thousands of dollars)

Identification code 69-1120-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	7,889	14,830	28,401
11.3 Other than full-time permanent	249	468	588
11.5 Other personnel compensation	166	312	473
11.9 Total personnel compensation	8,304	15,610	29,462
12.1 Civilian personnel benefits	1,582	2,973	4,674
21.0 Travel and transportation of persons	854	879	883
22.0 Transportation of things	13	10	9
23.2 Rental payments to others	114	105	109
23.3 Comm., utilities, and miscellaneous charges	341	466	380
24.0 Printing and reproduction	51	39	38
25.2 Other services	992	775	7,061
26.0 Supplies and materials	256	152	152
31.0 Equipment	544	285	292
43.0 Interest and dividends	...	1	...
99.0 Subtotal, direct obligations	13,051	21,295	43,060
99.0 Reimbursable Obligations	25,162	18,162	...
99.9 Total obligations	38,213	39,457	43,060

ERRATA

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
ADMINISTRATIVE EXPENSES
OBJECT CLASSIFICATION
(in thousands of dollars)

	Identification code 69-1120-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Direct obligations:				
	Personnel compensation:			
11.1	Full-time permanent	7,889	11,467	28,277
11.3	Other than full-time permanent	249	161	631
11.5	Other personnel compensation	166	265	570
11.9	Total personnel compensation	8,304	11,893	29,478
12.1	Civilien personnel benefits	1,582	1,536	4,844
21.0	Travel and transportation of persons	854	877	915
22.0	Transportation of things	13	10	9
23.2	Rental payments to others	114	105	109
23.3	Comm., utilities, and miscellaneous charges	341	379	380
24.0	Printing and reproduction	51	40	39
25.2	Other services	992	6,192	6,816
26.0	Supplies and materials	256	178	174
31.0	Equipment	544	86	296
43.0	Interest and dividends	...	...	...
99.0	Subtotal, direct obligations	13,051	21,295	43,060
99.0	Reimbursable Obligations	25,162	18,162	...
99.9	Total obligations	38,213	39,457	43,060

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
ADMINISTRATIVE EXPENSES

Personnel Summary

Identification code 69-1120-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Direct: Total compensable workyears:			
1001 Full-time equivalent employment	172	264	504
1005 Full-time equivalent of overtime and holiday hours	1	2	2
Reimbursable: Total compensable workyears:			
2001 Full-time equivalent employment	320	220	...

Note: Reimbursable full-time equivalent figures listed above reflect personnel funded from Trust Fund Share of Transit Programs.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

ADMINISTRATIVE EXPENSES

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority:			
General Fund	$13,095	$21,295	$43,060
Trust Fund	25,150	18,162	-
Total	$38,245	$39,457	$43,060

Objectives

The Administrative Expenses appropriation provides the personnel and support funds necessary to execute and manage the Federal Transit Administration (FTA) programs. Administrative Expenses were funded from general revenues through FY 1992. This account was split-funded in FY 1993 and FY 1994 from general funds and the Mass Transit Account of the Highway Trust Fund. In FY 1995, FTA proposes that Administrative Expenses be funded only from general funds.

Resources are requested to accomplish the following:

- effectively perform all necessary actions to review and approve grant applications, award new grants, and administer all active grants;
- timely and efficient delivery of both formula and discretionary funds;
- provide effective grant management oversight and strengthen the monitoring of grantees' expenditures and use of Federal funds;
- implement new requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991;
- fund and coordinate with other DOT agencies, projects and programs such as Intelligent Vehicle Highway Systems/Advanced Public Transportation Systems (IVHS/APTS), joint planning regulations, intermodal facilities and information collection/analysis;
- transfer funds to and from the Federal Highway Administration consistent with State and local planning decisions;

- implement the Americans with Disabilities Act (ADA);
- develop and implement the Transit Planning and Research Program;
- participate with State air quality agencies and other Federal agencies to implement the Clean Air Act Amendments (CAAA); and
- provide for the hiring, development, and support for the staff necessary to accomplish the numerous and various FTA program activities.

Staffing and Program Management

The personnel and financial resources requested in this budget are needed to accomplish the mission of FTA in an effective and efficient manner. FTA supported 484 FTE (466 ceiling) in FY 1994. This submission reflects 504 FTE (486 ceiling), an increase of 20 FTE to move staffing in the Regional offices toward the level required so that FTA can accomplish its basic mission and support implementation of ISTEA, ADA and the CAAA.

Financial resources requested to administer FTA's programs in FY 1995 total $43.060 million. Of this amount, $34.322 million (80 percent) is for personnel salaries and benefits, $5.187 million (12 percent) is for DOT Working Capital Fund charges and $3.551 million (8 percent) is for travel, training, supplies, equipment and other costs.

Federal Advisory Committee Act (FACA) Activities

The Technology Development Advisory Committee was established by ISTEA in FY 1992 and charged with assisting the Secretary of Transportation in identifying priority technology development areas and developing guidelines for project development, cost sharing and project execution. This committee is a continuing activity and will meet periodically for the remainder of ISTEA. Obligations estimated at $14.1 thousand are expected to be incurred in FY 1995.

Paperwork Activities

The anticipated implementation of a Drug and Alcohol Testing Regulation (a combined annual reporting requirement), State Safety Oversight of Fixed Guideway Systems Regulation, and the submission of Americans with Disabilities plans will result in an increase in the paperwork burden on our grantees in FY 1995. However, reductions in other areas and enhanced grantee online automation should lessen the impact of these increases.

Transit Benefit Program

The Federal Employees Clean Air Incentives Act, P.L. 103-172 was enacted January 1, 1994. The Act permits Federal agencies to establish programs to encourage employees to commute by means other than single-occupancy motor vehicles. The importance of this Act is that it permanently continues the authority Federal agencies had under the Postal Service and General

Government Appropriations Act of 1991 to provide employees with subsidized transit passes. In FY 1995, Administrative Expenses for this purpose will be $188,000

Funding Request

The following table summarizes the Administrative Expenses budget request by major object class:

Administrative Expenses (Obligations)
Major Object Classes
(Dollars in Thousands)

	FY 1993 Actual	FY 1994 Enacted	FY 1995 Request
Personnel Compensation	$25,857	$27,149	$29,478
Personnel Benefits	4,179	4,442	4,844
Travel of Persons	854	877	915
Transportation of Things	13	10	9
Rental Payment to Others	114	105	109
Communications, Utilities and Miscellaneous	341	379	380
Printing and Reproduction	51	40	39
Other Services	5,992	6,192	6,816
(DOT Working Capital Fund)	<4,790>	<4,741>	<5,187>
Supplies and Materials	256	178	174
Equipment	544	85	296
Interest	0	0	0
Total	$38,201	$39,457	$43,060

Summary of Changes

A summary of mandatory changes, price adjustments and program increases between FY 1994 and FY 1995 is presented in the following table:

Summary of Changes from FY 1994 to FY 1995
(Dollars in Thousands)

FY 1994 Appropriation		$ 39,457
Mandatory Adjustments and Price Increases:		
FY 1995 Pay Raise	+ 392	
Within-grade Increases (Including Benefits)	+ 737	
Annualization of FY 1994 Pay Raise	+ 295	
Miscellaneous Benefits Adjustment	+ 36	
Administrative Costs Reduction	- 253	
Projected Inflation	+ 72	
Working Capital Fund	+ 518	
Sub-Total		$+ 1,797
Adjusted Base for FY 1995 Reflecting Mandatory Adjustments and Price Increases		$ 41,254
Program Increases		
Retraining Personnel	+ 25	
Grantee Payment System Improvement	+ 100	
GMIS Security Accreditation	+ 100	
Equipment	+ 197	
Twenty FTE Increase	+ 1,384	
Sub-Total		$+ 1,806
FY 1995 Request		$ 43,060

Summary of changes: (continued)

EXPLANATION OF CHANGES AND ADJUSTMENTS:

Mandatory Adjustments and Price Increases (Dollars in Thousands)

FY 1995 Pay Raise	+ 392

This increase represents nine months of the salary and benefits costs associated with the January 1995 pay raise.

Within-grade Increases	+ 737

Within-grade increases are mandatory expenses paid to General Schedule (GS) employees who maintain a proficient or better performance rating and have spent the required time at their current step-in-grade.

Annualization of FY 1994 Pay Raise	+ 295

This increase represents the remaining full year cost of the FY 1994 locality pay raise. The pay raise was effective January 1994, thus three quarters of the costs were funded in FY 1994. This amount provides funds to pay the remaining unfunded quarter of the pay raise.

Miscellaneous Benefits Adjustment	+ 36

This amount represents mandatory increases in benefits for areas such as employee compensation fund allowance, basic benefits due to increased participation in the Federal Employee Retirement System (FERS) and permanent change-of-station.

Administrative Costs Reduction	- 253

This amount reflects a cumulative 6 percent reduction in administrative costs from the FY 1993 base adjusted for inflation and represents the second increment of the 14 percent reduction from FY 1994 through FY 1998 mandated by Executive Order 12837.

Projected Inflation	+ 72

This amount reflects projected inflation of approximately 2.6 percent over FY 1994 to cover anticipated general escalation in operating costs for all non-salary expenses except rent and Working Capital Fund (WCF).

Working Capital Fund + 518

This amount represents the Office of the Secretary's estimated increase over our FY 1994 costs. Also included in this amount is an increase for postage, training and some reimbursable agreements.

Program Increases

Training Personnel + 25

FTA's proposed staffing changes in FY 1995, coupled with the responsibility to implement new legislation (e.g., ISTEA, ADA, CAAA), will impact new and current employees. Clearly these changes cannot be taken without some realignment of human resources in order to assure FTA remains properly positioned to accomplish its mission. Reassigning affected employees to available vacant positions will require different skills and abilities, therefore, appropriate training and development must be provided. Problems can arise for both employees and managers when people are placed in jobs without requisite skills and an insufficient effort is made to provide developmental opportunity. Not only is mission accomplishment negatively impacted, but poor morale and disciplinary problems often result. The investment is necessary to assure successful performance pays long-term dividends.

Grantee Payment System Improvements + 100

In order to continue to effectively administer the ever increasing Federal requirements with limited human resources, more reliance on technology becomes a necessity. In FY 1995, FTA plans to focus on enhancing the capabilities of the Electronic Clearing House Operation (ECHO) system. This system was developed in December 1990 to provide for payment to grantees through the Treasury's Electronic Certification System (ECS), and has been enhanced with several accounting functions related to the grantee payment process. FTA plans to upgrade this process to ECHO II by redesigning the application and replacing the operational ECHO platform. The enhancements will completely automate the Status of Federal Funds Report and improve cash management oversight, as well as improve the efficiency and control in the accounting area and in the grantees' offices. In FY 1994, a study will be conducted to assess the future of the ECHO system in terms of its hardware and software environment, as well as enhancements regarding the operational performance. Implementation of ECHO II will result in more timely disbursements to grantees, reduced operational and system support costs and improved cash management oversight.

Security Accreditation of the GMIS + 100

During the development years (1986-1989) of the GMIS, the OIG completed several audits, finding deficiencies based upon the Computer Security Act of 1987. The GMIS was found in noncompliance with the Act due to the lack of undergoing a formal, independent systems accreditation and certification process. The system continued to operate and evolve under the rules of DOT Order 1640.10 which permitted the Designated Approving Authority to waive the requirement for certification on a year-by-year basis. In 1992, access to the GMIS for inquiry was implemented to 147 Federal grant-recipient agencies. In FY 1994, an electronic grant making initiative was begun to bring 25 pilot grantees on line. The security and integrity of the agency's financial data may be at risk if the systems accreditation process is not completed before the grant making initiative is extended to more than 500 Federal grantees. Completion of the accreditation process will assure the security and financial integrity of FTA program funds and reduce the risk of waste, fraud and abuse.

Equipment	+ 197

In FY 1994, FTA planned to continue to replace aging workstations and upgrade software and applications, a process begun in previous years. However, in order to assure sufficient funding for salaries and benefits due to the locality pay raise which became effective in January 1994, FTA had to decrease planned discretionary spending . The equipment allocation was, therefore, reduced to $85 thousand. An increase of $14 thousand due to inflation and the FTE increase, plus this amount, will restore the equipment base and allow FTA to resume equipment upgrades in FY 1995 to increase office productivity and to handle an expanded electronic grant making initiative.

Twenty FTE Increase	+ 1,384

FTA requests increased FTE to strengthen the Regional offices so that the agency can carry out its basic mission. This amount covers salaries, benefits, travel, supplies, equipment and other administrative costs associated with the additional FTE. FTA is also absorbing its share of FTE reduction associated with Executive Order 12837.

Twelve (12) FTE will be used to meet planning and CAAA requirements. Greater emphasis will be placed on increasing FTA staff involvement with FHWA in the local planning process to insure the transit perspective is adequately represented. ISTEA expands the responsibility of the FTA and FHWA to jointly participate in the planning process and requires certification of the metropolitan planning process in Transportation Management Areas (TMA) at least once every 3 years. We estimate that approximately 45 TMA's will be jointly reviewed annually by FTA and FHWA. In addition to the joint review of the metropolitan Transportation Improvement Program (TIP), ISTEA adds for the first time the requirement that FTA and FHWA jointly approve a Statewide TIP which incorporates all metropolitan TIPs. FTA is expected to conduct at least 125 conformity reviews annually to ensure that state transportation plans, programs and projects conform with State Implementation Plans and meet the national air quality standards in areas classified as nonattainment.

Twelve (12) FTE are requested for grants management, operations and oversight to review 540 ADA paratransit service plans detailing the capital and operating costs of providing complementary paratransit services. We have to monitor the compliance of over 700 construction financing plans to make individual key rail stations accessible nationwide. FTA will also need to continue its aggressive grants management oversight program by working directly with the contractors on Triennial Reviews, increase oversight activities for grantees that are potentially high risk, and conduct more frequent procurement and financial management systems reviews.

While, we have identified a number of high risk grantees, we do not have sufficient staffing to conduct in-depth reviews, identify corrective actions, and provide technical assistance.

Four (4) FTE will be committed to the Civil Rights function so that FTA will have a Civil Rights officer in each Regional office. We must educate our grantees about applicable requirements, monitor the grantees' progress in meeting program implementation requirements, and effectively track and maintain the status of all complaints. The lack of staffing in the Regional offices has resulted in an inadequate implementation of the FTA civil rights program, which includes responsibility for the FTA internal Equal Employment Opportunity (EEO) program, a Human Resources grant program, and the administration of the grantees' Title VI, EEO, Disadvantaged Business Enterprise (DBE), and ADA programs. FTA has experienced an increase in the number of complaints filed for alleged noncompliance with both the ADA and DBE programs. Disability groups and other protected classes, as well as grantees' Civil Rights Officers have expressed dissatisfaction with FTA's performance and level of commitment to civil rights. There have been numerous threats of lawsuits against the FTA and grantees, actual lawsuits have been filed in several locations around the country, and a number of contractors involved in the FTA DBE program have been debarred.

An eight (8) FTE reduction is proposed to respond to the Administration's personnel reduction goal expressed in Executive Order 12837.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESEARCH, TRAINING, AND HUMAN RESOURCES
Program and Financing (in thousands of dollars)

Identification code 69-1121-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
10.00	Total obligations	8,411	1,578	...
	Financing:			
17.00	Recovery of prior year obligations	(705)	...	...
21.40	Unobligated balance available, start of year	(9,284)	(1,578)	...
24.40	Unobligated balance available, end of year	1,578	...	...
39.00	Budget authority (gross)	...	...	...
	Relation of obligations to outlays:			
71.00	Total obligations	8,411	1,578	...
72.40	Obligated balance, start of year	32,814	29,705	17,600
74.40	Obligated balance, end of year	(29,705)	(17,600)	(8,215)
78.00	Adjustments in unexpired accounts	(705)	...	...
90.00	Outlays	10,815	13,683	9,385

PROGRAM AND PERFORMANCE STATEMENT

RESEARCH, TRAINING AND HUMAN RESOURCES

The activities of this account, beginning in 1993, are financed in the Transit Planning and Research account along with other activities authorized by the Intermodal Surface Transportation Efficiency Act of 1991.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESEARCH, TRAINING, AND HUMAN RESOURCES
OBJECT CLASSIFICATION
(in thousands of dollars)

Identification code 69-1121-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Direct obligations:			
25.2	Other services	4,941	395	...
41.0	Grants, subsidies, and contributions	3,470	1,183	...
99.9	Total obligations	8,411	1,578	...

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
RESEARCH, TRAINING, AND HUMAN RESOURCES
OBJECT CLASSIFICATION
(in thousands of dollars)

Identification code 69-1121-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Direct obligations:			
25.5	Research and development contracts	4,941	395	...
41.0	Grants, subsidies, and contributions	3,470	1,183	...
99.9	Total obligations	8,411	1,578	...

APPROPRIATION LANGUAGE

INTERSTATE TRANSFER GRANTS - TRANSIT

For necessary expenses to carry out the provisions of 23 U.S.C. 103(e)(4) related to transit projects, [$45,000,000] *$38,530,000*, to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
INTERSTATE TRANSFER GRANTS - TRANSIT
Program and Financing (in thousands of dollars)

Identification code 69-1127-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Program by activities:			
10.00 Total obligations (object class 41.0)	78,678	77,622	38,530
Financing:			
17.00 Recovery of prior year obligations	(515)	...	...
21.40 Unobligated balance available, start of year	(36,291)	(32,622)	...
24.40 Unobligated balance available, end of year	32,622	...	...
25.00 Unobligated balance expiring	506	...	...
40.00 Budget authority (appropriation)	75,000	45,000	38,530
Relation of obligations to outlays:			
71.00 Total obligations	78,678	77,622	38,530
72.40 Obligated balance, start of year	309,713	224,929	190,783
74.40 Obligated balance, end of year	(224,929)	(190,783)	(151,052)
78.00 Adjustments in unexpired accounts	(515)	...	...
90.00 Outlays	162,947	111,768	78,261

PROGRAM AND PERFORMANCE STATEMENT

INTERSTATE TRANSFER GRANTS - TRANSIT

For 1995, $39 million is requested to fund transit capital projects substituted for previously withdrawn segments of the Interstate Highway System. This will complete the Federal funding commitment for this program.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

INTERSTATE TRANSFER - TRANSIT

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Appropriation	$75,000	$45,000	$38,530

The Interstate Transfer - Transit program provides Federal financing to allow States and localities which withdrew nonessential Interstate segments to fund substituted public transportation capital improvements under the provisions of 23 U.S.C. 103(e)(4). Through FY 1992, States and localities have withdrawn about $6.5 billion in previously approved segments of the Interstate System and substituted transit capital projects in their place.

ISTEA authorized $164.8 million in FY 1993 for completion of the transit portion of the Interstate Transfer - Transit program. However, ISTEA does not authorize funds for FY 1994 and beyond. Funding in FY 1994, at $45 million, is not enough to fully complete the Federal share of funding for all transit projects substituted for withdrawn Interstate Highway segments. FTA requests $38.5 million in FY 1995 to complete funding for the interstate substitute transit program. This FY 1995 amount includes $38.3 million for the costs to complete project funding and a $.2 million set-aside for oversight activities.

In accordance with the ISTEA, the FY 1995 appropriation for transit substitute projects will " ... be apportioned in accordance with cost estimates adjusted by the Secretary." The requested $38.5 million will be apportioned among the remaining 16 areas eligible for transit substitute funding as follows:

INTERSTATE TRANSFER - TRANSIT

WITHDRAWAL AREA	ESTIMATED TRANSIT COST TO COMPLETE AS OF 9/30/94
SACRAMENTO, CA	$39,763
SAN FRANCISCO, CA	$1,169,100
KILLINGLY, CT	$141,538
HARTFORD, CT	$422,491
WASHINGTON, D.C.	$109,430
CHICAGO, IL	$879,645
WATERLOO, IA	$63,509
BALTIMORE, MD	$9,156,196
BOSTON, MA	$532,632
NEW YORK CITY, N.J.	$47,752
ALBANY, NY	$16,416
NEW YORK, N.Y.	$20,925,547
CLEVELAND, OH	$1,432,899
PORTLAND, OR	$1,661,718
PROVIDENCE, RI	$1,262,470
MEMPHIS, TN	$476,309
Subtotal	$38,337,415
Section 23 Set-aside	$192,585
TOTAL	$38,530,000

APPROPRIATION LANGUAGE

WASHINGTON METRO

For necessary expenses to carry out the provisions of section 14 of Public Law 96-184 and Public Law 101-551, $200,000,000, to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
WASHINGTON METRO
Program and Financing (in thousands of dollars)

Identification code 69-1128-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
10.00	Total obligations (object class 41.0)	171,079	200,328	200,000
	Financing:			
21.40	Unobligated balance available, start of year	(1,407)	(328)	...
24.40	Unobligated balance available, end of year	328	...	...
40.00	Budget authority (appropriation)	170,000	200,000	200,000
	Relation of obligations to outlays:			
71.00	Total obligations	171,079	200,328	200,000
72.40	Obligated balance, start of year	389,954	411,672	422,741
74.40	Obligated balance, end of year	(411,672)	(422,741)	(475,207)
90.00	Outlays	149,361	189,259	147,534

PROGRAM AND PERFORMANCE STATEMENT

WASHINGTON METRO

The National Capital Transportation Amendments of 1979 (Stark- Harris), authorized $1.7 billion in Federal funds to support the construction of the Washington Metrorail system. In addition, the National Capital Transportation Amendments of 1990 authorized another $1.3 billion in Federal capital assistance to complete construction of the planned 103-mile system.

For 1995, $200 million is requested under the 1990 authorization to continue funding the final 13.5 miles of the 103-mile system under Federal Transit Administration's Full Funding Grant Agreement with Washington Metropolitan Area Transit Authority. These funds will be used to continue construction of the Franconia/Springfield, Glenmont, Mid-City, and Branch Avenue lines, and to provide for project management, real estate acquisition, and other expenses such as contingencies and insurance.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

WASHINGTON METRO

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Appropriation	$170,000	$200,000	$200,000

Background

Public Law 96-184, the National Capital Transportation Amendments of 1979 (Stark-Harris legislation), authorized a total of $1.7 billion in Federal capital assistance to the Washington Metropolitan Area Transit Authority (WMATA) for construction of the Washington Metrorail System starting in FY 1982. It also authorized additional Federal participation in the retirement of bonds issued by WMATA. This authorization partially funded the first 89.5 miles of the planned 103-mile Washington Metrorail System. In addition, Public Law 101-551, the National Capital Transportation Amendments of 1990, enacted November 15, 1990, authorizes an additional
$1.3 billion in Federal capital assistance for construction of the remaining 13.5 miles of the Washington Metrorail System.

89.5-Mile System

In FY 1994, the remaining balance of $195,518 under the $1.7 billion Stark-Harris authorization was funded. This exhausted the authorization and completes the Federal commitment under the 1986 Full Funding Grant Agreement for the 89.5-mile component of the 103-mile system.

Construction Beyond 89.5-Miles

To complete the 103-mile system, the National Capital Transportation Act was amended on November 15, 1990 (P.L.101-551) to add an additional $1.3 billion in Federal funds to complete the remaining 13.5 miles of the system. The local matching share under the $1.3 billion authorization extension has been raised to 37.5 percent (62.5 percent Federal). Under the original Stark-Harris legislation, the matching ratio was 20 percent local and 80 percent Federal.

"Fast-track" Construction

WMATA has developed a "fast track" construction and funding schedule which will complete the last 13.5 miles of the 103-mile system within the current $2.08 billion ($1.3 Federal share) level authorized by the National Capital Transportation Amendments of 1990 (Public Law 101-551).

The "fast track" is based on the actual cash flow required to maintain the construction schedule. Therefore, a reliable federal appropriation is critical to securing the necessary credit arrangement required to keep the "fast track" construction program on schedule. FTA and WMATA have agreed upon the following "fast track" construction schedule for the final 13.5 miles at a total Federal cost of $1.3 billion: $96 million in FY 1992, $154 million in FY 1993, $200 million for five years beginning in FY 1994, and $50 million in FY 1999. The "fast track" construction schedule plans completion of the remaining 13.5 miles in eight years by constructing more than one segment at a time, thereby assuring that the entire 103-mile system can be completed within the $1.3 billion reauthorization. This accelerated construction schedule is expected to save between $600 million and $700 million during the construction period.

Total System Cost

After completion of a 103-mile system, it is estimated that a total of $12.7 billion of capital (local and Federal) will have been invested in the WMATA rail system as shown in Table 1. The Federal Government's portion will be $9.0 billion. This figure includes funding from the 1990 reauthorization, interest and principal on $997 million in Federally-guaranteed bonds through FY 1994, as well as interest expense and the cost of refinancing these bonds in 1994. Through a transaction that closed on December 30, 1993, the Department and WMATA jointly participated in refinancing these guaranteed bonds, thus ending the Department's obligation to the bondholders in this regard. To facilitate this refinancing, WMATA issued $350 million in new, non-Federally-guaranteed municipal securities while the Department borrowed $664.7 million from the Federal Financing Bank on a short-term basis. This intra-Government loan will be repaid through FY 1995 appropriations under existing budget authority, thus ending the Federal debt participation in this capital project.

Planned in FY 1995

FTA requests $200 million in FY 1995 for the "fast track" construction program. Funding appropriated in FY 1993, FY 1994 and FY 1995 under the "fast track" plan will be utilized as follows:

WMATA "fast-track" Construction Program

	(In millions of dollars)		
	FY 1993	FY 1994	FY 1995
Project management, consultants, start-up, force account, and work equipment	$ 2.2	$ 9.6	$27.2
Franconia route construction	87.9	39.3	10.1
Glenmont route construction	37.7	45.9	15.7
U Street/Fort Totten engineering and construction	16.2	53.4	105.7
Branch Avenue engineering and construction	9.1	50.9	40.3
Section 23 set-aside	.8	1.0	1.0
Total Federal Share	$153.9	$199.8	$200.0

(Note: Contingency and insurance costs are included in individual line estimates.)

TABLE 1

WASHINGTON METRO FUNDING SUMMARY
(in millions of dollars)

(89.5 Mile System)

			LOCAL	FEDERAL	TOTAL
FUNDS APPROPRIATED (MATCH)					
Direct Appropriations (1/3-2/3's)			573.5	1,147.0	1,720.5
Mid-City Line add-on (100% DC)			3.0	0.0	3.0
Add-ons (100% local)			12.9	0.0	12.9
Elderly and Handicapped Facilities (20%-80%)			13.0	52.0	65.0
Arlington Cemetery Station (100% Federal)			0.0	7.4	7.4
Federal-Aid Urban Systems (10%-90%)			3.2	28.5	31.7
Interstate Transfer Grants - Transit			453.8	2,155.8	2,609.6
Stark-Harris (20%-80%)	(Local)	(Federal)			
FY 1983	60.0	240.0			
FY 1984	62.5	250.0			
FY 1985	62.5	250.0			
FY 1986	54.0	217.2			
FY 1987	50.0	201.1			
FY 1988	44.9	180.5			
FY 1989	41.8	168.0			
FY 1990	21.1	84.7			
FY 1991	15.9	64.1			
FY 1992	7.0	28.0			
FY 1993	4.0	16.1			
FY 1994	0.0	0.2			
FY 1986-94 PMO (100% Fed)	N/A	[4.8]			
Total, Stark-Harris			423.7	1,700.0	2,123.7
TOTAL APPROPRIATED FOR 89.5 MILE SYSTEM			1,483.1	5,090.7	6,573.8

(13.5 Mile System)

			LOCAL	FEDERAL	TOTAL
NATIONAL CAPITAL AMENDMENTS OF 1990 (38.5%-62.5%			776.1	1,300.0	2,076.1
FUNDS APPROPRIATED (MATCH)	(Local)	(Federal)			
FY 1992	57.3	96.0			
FY 1993	91.9	153.9			
FY 1994	119.3	199.8			
FY 1995 REQUEST	119.4	200.0			
FY 1992-95 PMO (100% Fed)	(N/A)	[3.2]			
Total, National Capital Amendments			387.9	649.7	1,037.6
REMAINING NATIONAL CAPITAL AMENDMENTS					
Available for future appropriations			388.2	650.3	1,038.5
PMO			(N/A)	[3.3]	[3.3]
TOTAL APPROPRIATED FOR 13.5 MILE SYSTEM			776.1	1,300.0	2,076.1

Funds Derived from Bonds

	LOCAL	FEDERAL	TOTAL
Matching Bond Sales	48.5	0.0	48.5
BOND OBLIGATIONS (FY 1979 - 1994)			
Interest Payments on Bonds (1/3-2/3)	436.8	850.3	1,287.1
Principal Payments on Bonds	0.0	664.7	664.7
TOTAL BOND OBLIGATIONS	436.8	1,515.0	1,951.8
LOCAL DEBT (FY 1995 - 2014)			
Interest	545.9	0.0	545.9
Principal	332.4	0.0	332.4
	878.3	0.0	878.3
TOTAL FUNDING FOR 103 MILE SYSTEM	3,622.8	6,876.0	11,528.5

APPROPRIATION LANGUAGE

FORMULA GRANTS

For necessary expenses to carry out the provisions of sections 9, 16(b)(2), and 18 of the Federal Transit Act, to remain available until expended, [$1,284,916,000] *$1,715,050,000*: *Provided*, That no more than [$2,414,867,000] *$2,865,050,000* of budget authority shall be available for these purposes: *Provided further*, That of the funds provided under this head for formula grants no more than [$802,278,000] *$600,000,000* may be used for operating assistance under section 9(k)(2) of the Federal Transit Act: *Provided further, That 10 percent of the funds apportioned to each grantee under section 9 of such act shall be available for obligation only after the grantee certifies to the Secretary that that portion of its funds will only be used for eligible projects that will contribute to decreased traffic congestion in its urban areas. (Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
FORMULA GRANTS
Program and Financing (in thousands of dollars)

Identification code 69-1129-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Program by activities:			
Direct program:			
00.01 Urban formula grants	698,844	1,211,548	1,599,705
00.02 Nonurban formula grants	107,900	46,128	154,216
00.03 Rural transportation assistance	15	...	...
00.04 Elderly and disabled	...	17,576	61,129
00.91 Total direct program	806,759	1,275,252	1,815,050
01.01 Reimbursable program	1,049,025	1,129,951	1,150,000
10.00 Total obligations	1,855,784	2,405,203	2,965,050
Financing:			
17.00 Recovery of prior year obligations	(31,300)	...	...
21.40 Unobligated balance available, start of year	(466,147)	(340,336)	(350,000)
22.00 Unobligated balance transferred, net	1,154	...	...
24.40 Unobligated balance available, end of year	340,336	350,000	250,000
25.00 Unobligated balance expiring	173	...	...
39.00 Budget authority (gross)	1,700,000	2,414,867	2,865,050
Budget authority:			
Current:			
40.00 Appropriation	650,975	1,284,916	1,715,050
Permanent:			
68.00 Spending authority from offsetting collections	1,049,025	1,129,951	1,150,000
Relation of obligations to outlays:			
71.00 Total obligations	1,855,784	2,405,203	2,965,050
72.40 Obligated balance, start of year	2,489,378	2,073,929	3,092,311
74.40 Obligated balance, end of year	(2,073,929)	(3,092,311)	(4,206,756)
78.00 Adjustments in unexpired accounts	(31,300)	...	...
87.00 Outlays (gross)	2,239,933	1,386,821	1,850,605
Adjustments to budget authority and outlays:			
Deductions for offsetting collections:			
88.30 Trust funds	(1,049,025)	(1,129,951)	(1,150,000)
89.00 Budget authority (net)	650,975	1,284,916	1,715,050
90.00 Outlays (net)	1,190,908	256,870	700,605

PROGRAM AND PERFORMANCE STATEMENT

FORMULA GRANTS

In 1995, a total of $2.9 billion is requested for Formula Grants. These funds may be used for a wide variety of mass transit purposes including planning, construction of facilities, purchase of buses and railcars, and in some cases for operating assistance. Activities funded under this account are:

Urban Formula Grants (Sections 9 and 9B). - $2.6 billion will be apportioned by legislative formula for use in urbanized areas with populations of more than 50,000. Of this amount, ten percent will be set-aside for congestion relief transit incentive grants from each urban area's apportionment to fund proposed projects that contribute to decreased traffic congestion. Not to exceed $600 million of Urban Formula Grants funding will be available for operating assistance in urbanized areas. Most urban formula grants funds not available for operating assistance may be transferred to the Federal Highway Administration for use on highway projects at State and local discretion

Nonurban Formula Grants (Section 18). - $154 million will be apportioned according to a legislative formula based on each State's nonurban population to areas with populations of less than 50,000.

Elderly and Disabled Grants (Section 16). - $61 million will be apportioned for the Elderly and Disabled Program to each State according to a legislatively required formula to assist in providing transportation to the elderly and persons with disabilities. Funds may be made available to private nonprofit organizations and to public bodies when certain requirements are met.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
FORMULA GRANTS
OBJECT CLASSIFICATION
(in thousands of dollars)

Identification code 69-1129-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
41.0	Grants, subsidies, and contributions	806,759	1,275,252	1,815,050
99.0	Reimbursable obligations	1,049,025	1,129,951	1,150,000
99.9	Total obligations	1,855,784	2,405,203	2,965,050

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

FORMULA GRANTS

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority:			
General Fund	$650,975	$1,284,916	$1,715,050
Trust Fund	1,049,025	1,129,951	1,150,000
Total	$1,700,000	$2,414,867	$2,865,050

Program Structure

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 authorizes funds under section 21(a) to carry out sections 9, 9B, 11(b), 12(a), 16(b), 18, 23, and 26 of the Federal Transit Act, as amended, and substitute transit projects under section 103(e)(4) of title 23, United States Code. These authorized programs are established as takedowns from the amounts made available for Formula Grants Section 21(a) programs in any fiscal year. The FY 1995 request for these programs funded under Section 21(a), prior to takedowns, is $3.045 billion, just short of the $3.075 billion authorized in ISTEA.

ISTEA includes both trust funds from the Mass Transit Account of the Highway Trust Fund and general fund resources under Section 21(a). The FY 1993 and FY 1994 accounts under this section were split-funded. In FY 1995, FTA proposes to use trust fund and general fund resources for only Formula Grants programs. In this manner these trust fund resources will fund accounts that are distributed more widely to the areas that paid gasoline taxes. Centralizing trust funds in one appropriation allows efficiency in the management and accounting of these funds.

Section 11(b) University Transportation Centers; section 12(a) Administrative Expenses; section 26 Transit Planning and Research; and Interstate Transfer - Transit have separate justifications in this budget. Therefore, the remaining programs included here are: section 9 - Urban Formula Grants, section 18 - Nonurban Formula Grants, and section 16 - Elderly and Disabled Grants (funding designed to meet the special needs of elderly persons and persons with disabilities).

Section 23 of the Federal Transit Act, as amended, authorizes a take-down of 1/2 of one percent from section 9 and section 18 for project management oversight, and safety, procurement, management, and financial compliance reviews and audits.

Funding by Activity

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Section 9 - Urban Formula	$1,560,539	2,226,553	$2,649,705
Section 16 - Elderly and Disabled	48,636	58,726	61,129
Section 18 - Nonurban Formula	90,825	129,588	154,216
Total Formula Grants	$1,700,000	$2,414,867	$2,865,050

The FY 1995 budget request of $2.9 billion for sections 9, 16 and 18 represents an increase of $450 million or a 19 percent increase over the enacted FY 1994 level. This will provide essential capital resources to address capital needs for bus and railcar replacement, facility construction and fixed guideway modernization.

Section 9 - Urban Formula Grants

Congestion Relief Transit Incentive Grants - Highway congestion has increased, especially in large urban areas. According to the FHWA, the percentage of urban interstate travel that is congested during the daily peak travel hour increased from 55.4 percent in 1983 to 70.2 percent in 1991. Congestion in the nation's 50 largest urban areas now costs more than $39 billion annually in lost productivity and fuel costs.

To focus attention on transit's role in addressing this growing and costly problem, 10 percent of the $2.6 billion requested for urban formula grants will be set aside for Congestion Relief Transit Incentive Grants. This will be the forerunner of an Administration initiative to relieve urban congestion. In FY 1995, the section 9 Congestion Relief Transit Incentive Grants will emphasize projects that meet the requirements of the Traffic Congestion Management Systems plan called for in section 1034 of ISTEA. Traffic Congestion Management System Plans may include such actions as, transportation demand management, parking management, traffic operational improvements, transit capital improvements, and congestion pricing.

Key features of the Congestion Relief Transit Incentive Grants activity include:

o The Incentive Grants activity builds upon the Traffic Congestion Management System requirements in the recent Interim Final Rule, published December 1, 1993.

o Ten percent of the funds made available for section 9 will be designated for the Congestion Relief Transit Incentive Grants. ($265 million in FY 1995)

o Incentive Grant funds can be used for any eligible section 9 project that would mitigate traffic congestion in the urban area.

- Funds will be made available to each urban area or state if:
  - The area or state can demonstrate that the proposed project will contribute to decreased traffic congestion in the urban area. These types of projects are part of the traffic congestion strategies as required by 49 CFR Part 614, Management and Monitoring Systems; DOT Interim Rule.
  - Examples of a traffic congestion strategy include, but are not limited to:
    (1) Transportation Demand Management Measures.
    (2) Measures to encourage high occupancy vehicle (HOV) use, i.e., ridesharing/vanpooling.
    (3) Public transit capital improvements.
    (4) Purchase of systems to improve transit operations, i.e., traffic signal preemption for buses.
- Amounts apportioned under this section shall be available for obligation by the recipient for a period of 3 years following the close of the fiscal year for which such sums are apportioned. Any amounts so apportioned remaining unobligated at the end of such period shall be added to the amount available for apportionment under section 9 for the succeeding fiscal year.

Operating Assistance - The FY 1995 budget proposes funding at $600 million a reduction of $202.3 million (25 percent) from the $802.3 million level of the past seven years. This reduction in operating assistance is important because it allows FTA to have a higher formula capital budget while still maintaining the budgetary outlay levels required by the budget resolution acts. Increased transit capital funds will go for additional infrastructure improvements. This increase in Federal capital dollars will in turn allow State and local governments to make trade-offs in support of transit operating expenses, which are more appropriately under control of the local governments.

Operating assistance will be reduced 25 percent across all areas receiving urban formula grants funds. An across-the-board cut is proposed because it is equitable to all areas, and it follows the direction established by the House Appropriations Committee during the FY 1994 appropriations process. In both small and large urban areas, the increase in capital assistance will help reduce operating costs and stimulate long-term local commitment to transit.

Capital Assistance - In FY 1995, $2.05 billion is proposed for capital assistance, an increase of $625 million over the enacted FY 1994 level of $1.42 billion. Part of these funds will be used for the Congestion Relief Transit Incentive Grants. The requested FY 1995 budget continues to support the increased capital formula funding. This is consistent with the Administration's goal to increase investment in the Nation's infrastructure. Historically, 43 percent of funds were obligated under Section 9 to fund fixed guideway modernization and 57 percent were obligated for bus and bus-related projects. Since ISTEA, however, this percentage has shifted even more toward bus and bus-related projects. The most recent figures indicate that 37 percent of Section 9 funds are obligated to fund fixed guideway modernization and 63 percent are obligated for bus and bus-related projects.

Funds will be used to upgrade rail facilities and equipment and replace rail rolling stock, thus beginning to eliminate the rail investment backlog. These funds will also fund bus and van replacement and bus facility rehabilitation. The newer vehicles will be safer, more reliable, contribute to improved air quality, and be accessible to persons with disabilities.

Bus Capital - Bus services remain the mainstay of transit systems in nearly all urbanized areas. Ninety-five percent of the urbanized areas in which transit is provided only have bus service. In FY 1992, there were about 5.0 billion urban transit bus trips, about 65 percent of all transit trips.

In 1992, the total bus and paratransit fleet exceeded over 55,000, and transit systems had more than 600 maintenance facilities for bus and paratransit systems. In order to assure that transit service remains safe, clean and reliable, transit operators must continually recapitalize this investment by replacing overage vehicles and assuring that bus facilities remain in proper condition. The current average age of standard transit buses is 8.2 years. The increase in Federal capital funding over the FY 1994 level will provide the opportunity for grantees to replace overage buses, thus bringing fleet age more in line with the FTA recommended 6 year average fleet age standard and to make the bus fleet accessible to comply with the Americans with Disabilities Act of 1990. In addition, funds will be available for much needed maintenance facility investments.

In some urbanized areas, alternative fuel buses may be required to comply with the Clean Air Act. Section 9 funds will be the primary funding to cover the costs of alternative fuel buses and retrofit bus facilities to handle alternative fuels.

Fixed Guideway Modernization - The major goal of the fixed guideway modernization activity remains the stabilization and restoration of conditions on the Nation's older fixed guideway (rail) systems. An update to the 1987 Rail Modernization Study estimates that the total cost to restore the Nation's rail systems to good condition over a ten-year period is between $15 billion and $17 billion in 1992 dollars. Therefore, an annual requirement of between $1.5 billion and $1.7 billion from all sources, Federal, State, and local is necessary to maintain rail transit conditions and eliminate the backlog of rail transit project.

Recent levels of Federal investment with funds from section 3 fixed guideway modernization and section 9 have been sufficient to meet the goal of stabilizing rail conditions, and have made modest progress toward meeting the goal of improving conditions.

However, the FY 1995 request will make significant progress toward improving overall conditions, particularly when combined with State and local funds. State and local governments recently have been providing a significant amount of funding in addition to that needed to match Federal funds for fixed guideway modernization. In FY 1995, the section 9 resource will also be used to help defray the costs of making over 700 rapid, light, and commuter rail key stations accessible to persons with disabilities. These one time costs are estimated to be $900 million. Most of this cost will be incurred over the five year period 1994 through 1998, at about $100 million each year.

Section 16 - Elderly and Disabled Grants

In FY 1995, this budget proposes $61.1 million, an increase of $2.4 million over the FY 1994 level, to support the Section 16 program to fund projects specifically to meet the special needs of the elderly persons and persons with disabilities. This is consistent with ISTEA which authorizes for this program 1.34 percent of the total funding made available for the Federal Transit Administration, excluding funding for the WMATA.

Funds under this program are available for capital expenses to support the provision of transportation services to meet the special needs of elderly persons and persons with disabilities. Such expenses include the purchase of vehicles and equipment, and the acquisition of transportation services under a contract, lease or other arrangement.

The requirement that all fixed route transit systems provide paratransit service under the ADA has encouraged increased coordination among providers of specialized transportation services and those providing fixed route service. Section 16 funds are available to local public bodies, including transit providers, that have been designated by the State as the lead agency to coordinate specialized transportation service.

Section 18 - Nonurban Formula Grants

This budget requests $154.2 million to fund activities under the section 18 nonurban formula program, a $24.6 million increase over the FY 1994 level. These additional funds are needed to assist the States in carrying out essential transit service in rural areas. In FY 1995, ISTEA requires that States spend a statutory level of 15 percent for intercity bus transportation.

Our increased level of funding proposed for FY 1995 will assist States in meeting the new requirement to support intercity bus service and help meet the needs of local rural public transportation services. The section 18 program assists the over 1,000 rural transit operators to provide service using over 10,000 vehicles. About 110 million transit trips are provided per year.

While Section 18 funds can be used at the State's discretion for either capital or operating assistance, the absolute amount of funds programmed by the States for operating assistance under this program has remained virtually constant at about $60 million annually during the past few years. Therefore, the increased funding level proposed for FY 1995 will provide increased capital resources to enable operators in nonurbanized areas to replace equipment as it meets its useful life.

APPROPRIATION LANGUAGE

UNIVERSITY TRANSPORTATION CENTERS

For necessary expenses for university transportation centers as authorized by Section 11(b) of the Federal Transit Act, to remain available until expended, [$3,238,000: *Provided,* That no more than $6,000,000 of budget authority shall be available for these purposes] *$6,000,000.* *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
UNIVERSITY TRANSPORTATION CENTERS
Program and Financing (in thousands of dollars)

Identification code 69-1136-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
00.01	Direct program	2,025	3,238	6,000
01.01	Reimbursable program	...	6,737	...
10.00	Total obligations	2,025	9,975	6,000
	Financing:			
39.00	Budget authority (gross)	2,025	9,975	6,000
	Budget authority:			
	Current:			
40.00	Appropriation	2,025	3,238	6,000
	Permanent:			
68.00	Spending authority from offsetting collections	...	6,737	...
	Relation of obligations to outlays:			
71.00	Total obligations	2,025	9,975	6,000
72.40	Obligated balance, start of year	...	2,025	8,100
74.40	Obligated balance, end of year	(2,025)	(8,100)	(9,180)
87.00	Outlays (gross)	...	3,900	4,920
	Adjustments to budget authority and outlays:			
	Deductions for offsetting collections:			
88.00	Federal funds	...	(6,737)	...
89.00	Budget authority (net)	2,025	3,238	6,000
90.00	Outlays (net)	...	(2,837)	4,920

PROGRAM AND PERFORMANCE STATEMENT

UNIVERSITY TRANSPORTATION CENTERS

For FY 1995, $6 million is requested for the University Transportation Centers program which will be combined with funding from the Federal Highway Administration to support research, education, and technology transfer activities aimed at addressing regional and national transportation problems.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
UNIVERSITY TRANSPORTATION CENTERS
Object Classification
(in thousands of dollars)

Identification code 69-1136-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
41.0	Grants, subsidies, and contributions	2,025	3,238	6,000
99.0	Reimbursable obligations	...	6,737	...
99.9	Total obligations	2,025	9,975	6,000

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

UNIVERSITY TRANSPORTATION CENTERS

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority			
General Fund	$2,025	$3,238	$6,000
Trust Fund	3,975	2,762	-
Total	$6,000	$6,000	$6,000

Background

Section 11(b) of the Federal Transit Act, as amended, authorizes the University Transportation Centers Program (UTCP) The mission of the program is to advance U. S. expertise in the many transportation disciplines through the mechanisms of research, education and technology transfer at institutes of higher learning. There are thirteen University Transportation Centers; ten regional centers and three national centers.

The Regional Centers and their focus areas are:

Region I	Massachusetts Institute of Technology	Strategic Management of Transportation Systems
Region II	City University of New York	Regional Mobility and Accessibility: Investment Strategies
Region III	Pennsylvania State University	Advanced Technologies in Transportation Operations and Management
Region IV	University of North Carolina	Transportation Safety
Region V	University of Michigan	Commercial Highway Transportation
Region VI	Texas A&M State University	Mobility for Regional Development
Region VII	Iowa State University	Midwestern and Rural Transportation Policy, Planning, and System Management

Region VIII	North Dakota State University	Rural and Non-Metropolitan Transportation
Region IX	University of California, Berkeley	Improving Accessibility for All
Region X	University of Washington	Operations Management and Planning.

The National Centers are:

- National Center for Transportation and Industrial Productivity at New Jersey Institute of Technology,
- National Center for Transportation Management, Research & Development at Morgan State University, and
- Mack-Blackwell National Rural Transportation Study Center at the University of Arkansas.

Objectives and Approach

The objectives of the program are to:

- address current and future transportation challenges and issues through interdisciplinary, applied and basic research;
- provide an interdisciplinary education for tomorrow's transportation professionals and advance the skills of today's professionals; and
- disseminate the results to all prospective users of the research products.

The Centers program has an integrated management team. The Research and Special Programs Administration heads the team, with the Federal Transit Administration and the Federal Highway Administration as the other two team members. An annual grant award is made each year to each of the Centers. This is based on submission of an annual program plan for that year and an evaluation of the previous year's successfully completed plan. This program has a 50 percent matching requirement.

The Federal Highway Administration is authorized to appropriate $6,000,000 from the Highway Trust Fund annually through FY 1997 for the UTCP. This amount is combined with the Federal Transit Administration's appropriation and made available to the thirteen Centers.

Accomplishments

Over 450 research projects have been funded; about sixty percent of which are completed. The research is a mix of highway, transit and intermodal projects; many are doctoral dissertations or fulfill pressing research needs at State transportation departments and regional and local agencies. Particularly successful projects include: a wheelchair securement device now being manufactured for use by transit operators; a lecture series to assist MPOs and transit operators to respond to planning, clean air and other requirements of ISTEA; analyses of high-speed transit modes in a congested corridor in the Southeast; developing and maintaining a panel of almost two thousand commuters for use by a major MPO in determining changes in mode choice; and, assisting a small community implement a paratransit service for disabled persons. Graduates from one Center, responding to a survey, demonstrated that 37 went to work for Federal, State and local transportation-related agencies, 28 remained in academia, 20 pursued transportation consulting, and only 3 went into non-transportation related careers. More than 2,800 university students and 500 faculty members have been involved with the program nationwide.

All of the Centers have developed strong and creative diversity recruitment programs both for students and faculty. The National Clearinghouse has compiled a data bank of all research reports completed by all of the Centers and this is can be accessed through a Clearinghouse bulletin board using a simple access number.

Planned for FY 1995

The research program will continue to emphasize transit research that is directly applicable to real world problems. In order to keep abreast of these needs, the education programs will be revised and updated. New degree programs will be added in order to respond to the need for interdisciplinary degrees and courses reflecting the developing multi-modal emphasis in transportation programs.

APPROPRIATION LANGUAGE

TRANSIT PLANNING AND RESEARCH

For necessary expenses for transit planning and research as authorized by section 26 of the Federal Transit Act, to remain available until expended, [$48,125,000: *Provided,* That no more than $92,250,000 of budget authority shall be available for these purposes:] *$92,250,000: Provided* [*further*], That there may be credited to this appropriation funds received from States, counties, municipalities, other public authorities, and private sources, for expenses incurred for training. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRANSIT PLANNING AND RESEARCH

Program and Financing (in thousands of dollars)

Identification code 69-1137-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
00.01	Direct program	24,720	53,559	92,250
01.01	Reimbursable program	14,642	98,396	...
10.00	Total obligations	39,362	151,955	92,250
	Financing:			
21.40	Unobligated balance available, start of year	...	(5,434)	...
22.00	Unobligatad balance transferred, net	(1,154)	...	...
24.40	Unobligated balance available, end of year	5,434	...	...
39.00	Budget authority (gross)	43,642	146,521	92,250
	Budget authority:			
	Current:			
40.00	Appropriation	29,000	48,125	92,250
	Permanent:			
68.00	Spending authority from offsetting collections	14,642	98,396	...
	Relation of obligations to outlays:			
71.00	Total obligations	39,362	151,955	92,250
72.40	Obligated balance, start of year	...	23,581	130,652
74.40	Obligeted balance, end of year	(23,581)	(130,652)	(148,562)
87.00	Outlays (gross)	15,781	44,884	74,340
	Adjustments to budget authority and outlays:			
	Deductions for offsetting collections:			
88.00	Federal funds	(14,642)	(98,396)	...
89.00	Budget authority (net)	29,000	48,125	92,250
90.00	Outlays (net)	1,139	(53,512)	74,340

PROGRAM AND PERFORMANCE STATEMENT

TRANSIT PLANNING AND RESEARCH

Funding of $92 million is requested for the Transit Planning and Research (TPR) Program to fund a wide variety of activities. Under the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, 45 percent of the TPR funding must be apportioned to States for Metropolitan Planning (Section 8), 5 percent for the Rural Transit Assistance Program (Section 18(h)), 10 percent for the Transit Cooperative Research Program, 10 percent for the State TPR Program, and 30 percent for the National TPR Program.

Under the national component of the program, the FTA is a catalyst in the research, development and deployment of transportation methods and technologies addressing such issues as accessibility for the disabled, air quality, traffic congestion and service and operational improvements. Funds for the State and local component of the program improve the State and local planning process and allow them to participate in research efforts.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRANSIT PLANNING AND RESEARCH

Object Classification
(in thousands of dollars)

Identification code 69-1137-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Direct obligations:			
25.2	Other services	7,910	13,390	23,063
41.0	Grants, subsidies, and contributions	16,810	40,169	69,187
99.0	Subtotal, direct obligations	24,720	53,559	92,250
99.0	Reimbursable obligations	14,642	98,396	...
99.9	Total obligations	39,362	151,955	92,250

ERRATA

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRANSIT PLANNING AND RESEARCH
Object Classification
(in thousands of dollars)

Identification code 69-1137-0-1-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Direct obligations:			
25.1 Consulting services	2,114	2,200	2,200
25.5 Research and development contracts	5,796	11,190	20,863
41.0 Grants, subsidies, and contributions	16,810	40,169	69,187
99.0 Subtotal, direct obligations	24,720	53,559	92,250
99.0 Reimbursable obligations	14,642	98,396	...
99.9 Total obligations	39,362	151,955	92,250

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

TRANSIT PLANNING AND RESEARCH

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority:			
By source of funding-			
General Fund	$29,000	$48,125	$92,250
Trust Fund	56,000	44,125	-
Total	$85,000	$92,250	$92,250
By program-			
Metropolitan Planning Program	$38,250	$41,512	$41,512
Rural Transit Assistance Program	4,250	4,613	4,613
State Planning and Research Program	7,750	8,475	8,475
Transit Cooperative Research Program	7,750	8,475	8,475
National Transit Institute	3,000	3,000	3,000
National Planning and Research Program	24,000	26,175	26,175
Total TPR Programs	$85,000	$92,250	$92,250

Fiscal Year 1995 is the fourth year of the combined Transit Planning and Research (TPR) Program enacted by the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The program will total $92.3 million in FY 1995.

Consistent with ISTEA, TPR funds are allocated as follows:

- 30 percent for the National Planning and Research Program under Section 26(b), less $1.5 million for the National Transit Institute (NTI),
- 10 percent for the Transit Cooperative Research Program under Section 26(a)(1), less $750 thousand for NTI,
- 10 percent for State Planning and Research under Section 26(a)(2), less $750 thousand for NTI,
- 45 percent for Metropolitan Planning under Section 8(n),
- 5 percent for the Rural Transit Assistance Program under Section 18(h), and
- $3 million for the National Transit Institute (NTI) under Section 29.

METROPOLITAN PLANNING PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$38,250	$41,512	$41,512

For FY 1995, FTA requests $41.5 million to support the transportation planning activities of MPOs. This level reflects the role of planning agencies in continuing to shape transportation investments that respond to the needs of their communities. This funding level assists MPOs to carry out the requirements resulting from ISTEA and the metropolitan transportation planning and programming regulations issued October 28, 1993.

To a large extent, the benefits of transit investment are determined at the planning level. The quality and cost effectiveness of transit and highway projects are directly dependent upon the planning process, because it is in this process that projects are evaluated, and the most cost-effective are selected for funding. In addition to their obvious effect in determining the ability to attract and sustain patronage, planning decisions also dictate:

(1) the role that transit investments will play in local economic and social life;
(2) the extent to which transit projects can ameliorate environmental conditions; and
(3) the realization of opportunities for full intermodal coordination.

Metropolitan Planning Organizations (MPOs) are the foundation of transit and highway planning. There are 380 MPOs nationally, including 33 new ones resulting from the 1990 census. The planning process operates under the provisions of the Federal Transit and Federal Highway legislation. It has assumed importance due to the great intermodal flexibility built into both the Federal transit and highway programs. It helps ensure the maximum benefit from all Federal transportation assistance.

Eighty percent of the funds are allocated to the States by each State's total urbanized area population, and the remaining twenty percent is allocated on the basis of the population in urbanized areas exceeding one million. All of these funds must be made available by the States to MPOs. The respective urbanized area MPO is determined by each State in cooperation with local officials.

These funds support the continuing, cooperative and comprehensive (3-C) metropolitan planning and programming process which FTA administers in cooperation with the Federal Highway Administration (FHWA). FHWA's funding is contained in its Planning (PL) and Highway Planning and Research (HPR) programs.

Products required of the 3-C process include a transportation improvement program based upon a multi-modal long-range transportation plan. The Transportation Improvement Program (TIP) is a compilation of specific projects, by year to be obligated, which are derived from metropolitan area long-range transportation plans. In larger cities over 200,000 population and in non-attainment areas, a congestion management system is required as well. These are updated regularly, using information generated by a variety of studies and analyses.

FTA-funded planning processes encompass studies of: land-use; economic, social and demographic trends; transportation demand; system performance; transit finance; transportation air quality and energy impacts; the mobility needs of disabled persons; transit modernization and rehabilitation needs; and, the cost-effectiveness of potential new services and facilities. The local planning program is also the mechanism which FTA uses to insinuate national policy objectives such as energy conservation, air quality improvement, and accessibility for elderly and disabled persons into local planning and decision-making.

RURAL TRANSIT ASSISTANCE PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$4,250	$4,613	$4,613

A total of $4.6 million of the requested TPR funding is to be allocated to the Rural Transit Assistance Program (RTAP), for apportionment directly to the States. The apportionment formula, identical to Section 18 and apportioned with it, is based on each State's percentage of the total national rural population. (The national portion of the RTAP program is included in the National Planning and Research Program discussed below.)

As in the past, States will continue to use this funding for research, technical assistance, training, and related support services in non-urbanized areas. Examples of the use of state RTAP dollars are for scholarships to workshops, peer-to-peer networking, newsletters, and research in the areas such as routing and scheduling.

STATE PLANNING AND RESEARCH PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$7,750	$8,475	$8,475

A total of $8.5 million of the requested TPR funding is to be made available for a State Planning and Research Program. The program is allocated to the States using a statutory formula based on urbanized area population. All activities permitted under sections 6, 8, 10, 11, and 20 of the Federal Transit Act are eligible for section 26(a)(2) funding, at the programming discretion of the respective States. Eligible activities include planning, technical assistance, independent research, cooperative research with other states, managerial training and university research.

State TPR funding is essential to helping the States meet the new state-wide planning and programming requirements and management systems established by ISTEA. States are now required (by Statewide and Metropolitan Final Rule issued on October 28, 1993) to establish long-range transportation plans and project specific transportation improvement plans, while developing and maintaining six transportation management and monitoring systems (according to Management Systems Interim Final Rule issued on December 1, 1993). These plans and programs must include and build upon similar plans developed by the MPOs.

States have broad discretion in determining the types of projects undertaken with Section 26(a)(2) funds. Examples of State projects include: development of a statewide training module on ADA specifications and inspection procedures for paratransit vehicle specification compliance for use by transportation providers, State inspectors and equipment manufacturers; testing the utility of a portable computer in conjunction with the global positioning system (GPS); and, local training programs that address human resource needs such as development of an Upward Mobility Internship Program and pilot 2000 employees and creation of a Supervisory Development Program for women employees.

A State's section 26(a)(2) funds can also be used to supplement the Metropolitan Planning Program funds it allocates to the Metropolitan Planning Organizations, as well as to cover the cost of State administration of that program. The use of 26(a)(2) funds are at the programming discretion of the respective States.

TRANSIT COOPERATIVE RESEARCH PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$7,750	$8,475	$8,475

A total of $8.5 million of the requested TPR funding is to be made available for the Transit Cooperative Research Program (TCRP).

The TCRP allows the industry, through an independent governing board, called the TCRP Oversight and Project Selection (TOPS) Committee, to have an opportunity to develop a research and demonstration agenda responsive to the needs of the transit industry. The TCRP fosters greater cooperation among transportation providers and suppliers, State and local agencies and other key segments of the industry in conducting research.

The first three annual agendas of research projects have been identified, and these projects are being implemented. Examples of projects that the industry has chosen to fund include assessment of innovative fare collection technology and policy, means of improving employee performance, better techniques for inventory control and developing new information on a range of safety and planning issues. A strategic plan has been prepared to guide the TCRP in its formative years and a special focus is being placed on information dissemination, to get research results implemented. The TOPS committee is currently soliciting new research topics for the fourth-year (1995) research agenda.

NATIONAL TRANSIT INSTITUTE

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$3,000	$3,000	$3,000

The National Transit Institute (NTI) assists the transit industry in the training and development of its workforce. The NTI, located at and managed by Rutgers University for the FTA, is patterned after the National Highway Institute which supports training and development in the highway industry.

The program was earmarked by Congress in the ISTEA for six years of funding at $3 million a year starting in FY 1992. The NTI develops and conducts training and technical assistance activities in cooperation with the FTA and the transit industry. The cooperative agreement between the FTA and Rutgers University, first awarded in May of 1992, calls for the NTI to work closely with the transit industry in the development and conduct of training. An advisory board established by the NTI representing transit industry interests meets periodically to provide the NTI with policy and program focus.

The NTI develops and conducts training in support of the FTA and the transit industry. Curriculum development and presentations are underway on a number of Federal program responsibility courses providing training at no cost to state and local transit employees. These courses are aimed at providing training needed to implement Federal regulations, standards and policy initiatives. Training is also underway on a broad variety of industry identified needs. In addition, the NTI provides technical support relating to training, a clearinghouse function which will include cataloging of curriculum offered at the NTI and elsewhere and referral services relating linked to the training and development needs of the transit industry.

Recent accomplishments include the start-up of a series of "New Technology Seminars" on subjects relating to the introduction of innovation in transit. Subjects such as alternative fuels and automatic vehicle monitoring are just a small sample of offerings underway or planned. In addition, short course series on first line supervisor and middle management training are scheduled at regional locations and offered on demand.

NATIONAL PLANNING AND RESEARCH PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$24,000	$26,175	$26,175

The National Program, for which $26.2 million is proposed for FY 1995, is FTA's creative enterprise intended to ensure an ever- increasing range of innovative and cost-effective options for transit equipment, facilities and operations, responding to the needs of the customer. In addition, the National Program should produce better planning data and methods, operations, and analysis techniques to facilitate the transportation decision-making process at the state and local levels.

The Transit Industry Technology Development Advisory Committee, required by ISTEA, provides essential transit industry direction. This committee is composed of transit suppliers, manufacturers, operators, consultants, and members of academic institutions. This Committee meets periodically to recommend technology priorities, emphasis areas, and cost sharing possibilities. The Committee met with Deputy Secretary Downey in August 1993, to discuss how best to support the continuing vitality of the U.S. transit manufacturing industry.

The Advisory Committee has recommended six priority areas for technology development: reduce maintenance and operations costs; increase ridership, enhance safety and security while improving access; support the Clean Air Act and Americans With Disabilities Act; reduce vehicle weight and increase vehicle efficiency; transfer technology from other industries and improve information dissemination; and, control capital costs. The FY 1995 program reflects these priority areas, which were supported in deliberations of the 1992 and 1993 Priorities Workshops.

The National Planning and Research Program is divided into eleven specific program areas. Projects in each program area represent a mix of research, demonstrations and studies or development and application of new technologies, as well as information dissemination and evaluation. The eleven programs areas are as follows:

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$24,000	$26,175	$26,175
By program area-			
Advanced Public Transportation Systems Program	$ 3,165	$ 3,000	$3,000
Clean Air Program	1,750	2,500	1,500
Finance Program	1,000	300	500
Human Resources and Productivity Program	1,800	1,390	2,000
Information Program	3,865	3,800	3,800
Planning and Project Development Program	2,500	1,000	2,000
Policy Analysis and Evaluation	1,400	990	1,000
Regional Mobility Program	2,450	2,500	2,500
Safety and Security Program	1,000	900	1,000
Technology Development Program	3,100	7,695	6,775
Transit Accessibility Program	2,000	2,100	2,100

The request for each program area follows.

ADVANCED PUBLIC TRANSPORTATION SYSTEMS PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$3,165	$3,000	$ 3,000

Background

Advanced Public Transportation Systems, or APTS, are advanced navigation and communication technologies applied to all aspects of public transportation system operations. APTS provides the technology for transportation agencies to make timely information available to the passenger and to improve the convenience, reliability, and safety of public transportation service. The FTA created the APTS program as part of the DOT initiative in Intelligent Vehicle-Highway Systems (IVHS).

Objectives and Approach

The goal of the APTS program is to enhance the ability of public transportation systems to satisfy customer needs and contribute to community goals by providing information on innovative applications of available IVHS technologies from a coordinated operational test and evaluation program.

The goal is accomplished through research on promising new technologies in public transportation applications; technical assistance and the development of user requirements; and, operational tests and evaluations of site-specific applications of new technologies.

Accomplishments

Completed evaluation plans for six sites and six others are under development. These plans are tailored adaptations of the FTA standardized Evaluation Guidelines for the Advanced Public Transportation Systems Operational Tests.

Updated the document Advanced Public Transportation Systems: The State of the Art which is being used by the transportation industry to plan advanced transportation systems.

Directed a first-ever Catalog of APTS Technologies in cooperation with IVHS America and the Volpe Transportation Research Center.

Completed User Service Plans to guide development of a national IVHS architecture in seven key areas for APTS technologies.

Completed functional requirements for APTS technologies in the IVHS Systems Architecture development effort.

Finalized implementation design for an operational test of the "Smart Commuter" in Houston, TX that will induce mode shifts from single occupant automobiles to shared ride transportation. Data from an implemented evaluation plan is now being collected and analyzed.

Began implementation designs for the Ann Arbor MI Intermodal Integration Project, Bus Management System in Chicago and mobility management project in Winston-Salem, N.C. These projects will combine several elements including vehicle location, electronic fare collection, and central control for more effective system management and improved customer service.

Developed two mobility manager projects that electronically integrate multiple transit operators and services in Delaware County, PA and Rogue Valley, OR.

Planned for FY 1995

Teamed with FHWA in the selection and development of IVHS Corridors operational tests in Wilmington, Delaware; Denver, Colorado; Minneapolis/St. Paul, Minnesota; San Francisco, California; New York, New York and Northern Virginia.

Assisted the Chattanooga Area Regional Transportation Authority in selecting a contractor to examine the potential for employing advanced fare payment media in Chattanooga.

The contractor in the Twin Cities Smart Card project produced a final report on the potential for smart card applications for the Regional Transit Board's paratransit operations.

Supported Denver RTD and Baltimore MTA in the development of evaluation efforts for the implementation of their Automatic Vehicle Location and Advanced Communications Systems.

Evaluation and Cross Cutting Studies. Evaluation plans will be developed for ten new sites. Data collection and evaluation efforts for twelve ongoing operational tests will be continued. The first in a series of opportunities for cross-cutting studies of APTS operational tests will be developed from the three mobility manager sites. Several local initiatives to apply APTS technologies will also be documented.

Research. Research will focus on the application of advanced technologies and command and control strategies for better management of public transit bus fleets. Among promising technologies are those dealing with communications, data processing, data reception patterns, message coding, vehicle location and passenger counting. New operational strategies and possible service innovations like personalized public transit systems and single trip carpooling will be researched based on the results of operational tests and evaluations.

Design requirements for a multimodal control center and passenger communications system will be developed, with initial focus on integration of rail and bus systems. Effective transportation network management requires the ability to locate all vehicles with their expected route and travel time, to manage anomalies that occur in the system and to communicate with all users to provide accurate real-time information. This will apply advanced computer and communication technologies now used in defense and aerospace, taking into account human factors, ergonomics, displays, exception reporting, passenger information needs and intermodal operations.

User Requirements and Technical Assistance. The APTS Program will continue development of APTS user services, functional requirements and standards. System performance evaluations will be developed from the operational tests. Guidelines for intermodal fare systems and structures will be formed using the outcome from operational tests and evaluations.

Operational Tests. Four or five operational tests to evaluate advances in APTS technologies will draw on both FTA and FHWA fund sources in the areas of Smart Traveler, Smart Vehicle, and Smart Intermodal Systems. Operational tests will build on developed AVL technologies and advance flexibly operated transit and smart card technology developments for testing applications in different transit markets. Advances in two-way interactive technologies, hand-held devices, and the sharing of various transportation databases will open opportunities to operationally test regional intermodal travel information systems.

CLEAN AIR PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$1,750	$2,500	$1,500

Background

Transportation has major impacts on the environment. Emissions from mobile sources are one of the largest contributors to urban air quality problems. One fourth of the Nation's total energy consumption, and approximately two-thirds of the petroleum used, supports U.S. transportation.

The Clean Air Program (CAP) was established to support the national goals of improving air quality and reducing petroleum dependency. The national goals, derived from the Clean Air Act Amendments of 1990, established emissions standards for urban transit buses, and with the Energy Policy Act of 1992 established a goal to replace at least 10 percent of the petroleum fuel used by transportation with alternative fuels by the year 2000, and 30 percent by 2010.

Current cutbacks in defense expenditures and President Clinton's declared policy of technology reinvestment for dual-use military and civil applications offer a new opportunity for the transportation community to make use of the defense industry's advanced technologies and expertise. The CAP is one avenue for the transit industry and the defense sector to coordinate their efforts in technology development that have dual-use applications.

Objectives and Approach

The objective of the Clean Air Program is to provide decision-makers, at all levels, with a better understanding of emerging technologies that generate cleaner emissions and are non-petroleum derived, and to provide technical assistance and support to the transit industry in making a successful transition to these technologies. Efforts under the CAP are closely coordinated with the Environmental Protection Agency (EPA) and the Department of Energy (DOE). Similarly, there are ongoing vehicle propulsion programs in defense conversion and dual-use technology that are of interest to the transit industry. To keep abreast of these developments, FTA will continue to coordinate closely with the Advanced Research Projects Agency (ARPA), the lead Federal agency in the Technology Reinvestment Project, and with the National Institute of Standards and Technology (NIST) of the Department of Commerce, which manages the Advanced Technology Program.

The Clean Air Program includes technical support and evaluation of the introduction of alternative fueled buses into revenue service operations, development and dissemination of facility design guidelines to accommodate alternative fuels, and comparative analyses of alternative fuel bus operations.

Accomplishments

Under the CAP, numerous initiatives have resulted in the development and demonstration of alternative vehicle fuels for transit buses. The technologies for methanol and natural gas heavy duty engines have matured to the point that buses powered by these fuels are now widely available with full factory warranties and offer performance equivalent to that of a diesel bus while emitting far fewer pollutants. The success of these programs is demonstrated by the fact that approximately 20 percent of new buses purchased are now powered by natural gas or methanol.

Fuel Cell/Battery Bus. FTA has been working with the Department of Energy to develop a Fuel Cell/Battery Bus Propulsion System. A four phase program was initiated in 1987. Under Phase I, Proof of Feasibility, the technical feasibility of such a propulsion system was established. The projected emissions from a fleet of fuel cell/battery buses was equal to a single conventional diesel bus. Under Phase II, which is nearing completion, 3 prototype test bed buses are being fabricated. The first fuel cell/battery bus is scheduled to roll out this spring. Under Phase III, the 3 test bed buses will be placed in demonstrations. Data collection and evaluation of the operation and maintenance of these buses will be conducted. Phase IV calls for the fabrication of a small fleet of these buses.

Electric Vehicle Program. The ISTEA provided $12 million for an Advanced Transportation and Electric Vehicles Research and Development Program. Under this program, four consortia were selected after a competitive review process. CALSTART has manufactured a Showcase Electric Vehicle with advanced electric vehicle components and subsystems. CALSTART has also developed and is demonstrating a 22-foot electric bus. A 30-foot electric bus has also been designed and will roll out in late Spring. One hundred recharging stations have been installed as part of CALSTART's effort to evaluate the infrastructure needs for electric vehicles. A training video for fire and rescue personnel to safely deal with electric vehicle accidents has been developed along with a fleet manager training program. The Chesapeake Consortium has developed an advanced powertrain for electric vehicles that is being demonstrated and evaluated in 10 prototype electric vehicles based on the Chrysler minivan platform. Development work is continuing to further refine the powertrain to lower the cost of production. Work is also proceeding with the application of this powertrain to buses. The New York State Consortium is developing a low floor, full sized bus with a hybrid electric propulsion system. The goal is to reduce the bus emissions by 50 percent and to reduce the petroleum consumption by 25 percent. The first prototype bus is scheduled to roll-out this summer. The Advanced Lead Acid Battery Consortium (ALABC) is developing rapid recharging systems and battery monitoring and control systems. .

Planned for FY 1995

Continue to develop an advanced hybrid electric bus. Focus the design on a small, low-emission, alternative-fuel engine used to generate power which charges the batteries and, in turn, power electric motors for propulsion.

Continue to develop a full-size, domestically produced, fuel- cell/battery transit bus.

Provide technical assistance to transit agencies in their efforts to deploy alternative fueled buses.

Continue to monitor progress of the four consortia implementing the Electric Vehicle program.

Continue to support the ETVI, which will serve as the facilitator and resource center for electric vehicle development for the transit industry. A field testing laboratory for the research, design, development and demonstration, support of electric transit vehicles will be established by ETVI.

Develop a manual for liquefied natural gas (LNG) transit buses to complement the existing manuals for compressed natural gas (CNG) and methanol buses. The Transportation Safety Institute will develop and conduct training courses based on these manuals. Also, develop guidelines for the conversion and construction of new transit facilities to safely accommodate alternative fuels.

Continue data collection and evaluation of the performance, reliability, and cost of alternative-fueled and clean-diesel buses in cooperation with the Department of Energy.

Conduct demonstrations of clean diesel bus technology with new materials for catalytic converters for bus engine rebuilds to meet EPA requirements.

Prepare summaries of operating experience and disseminate information concerning FTA's Clean Air Program and Department of Energy activities, Federal legislation, State and local activities, and development in alternative fuels technology.

FINANCE PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$1,000	$300	$500

Background

Mass transportation in the United States will be faced with extensive financial demands throughout the 1990's. It is estimated that replacement and rehabilitation of existing assets will cost more than $50 billion over the next ten years. Providing capital for this level of investment will be made more difficult by demands for new systems, many of which were earmarked in the ISTEA. Ever increasing operating and maintenance costs and effective responses to the CAAA and the ADA requirements will necessitate innovative approaches to transit finance.

Objectives and Approach

The objectives are: to help stabilize and diversify the funding base for transit systems; stimulate public/private partnerships; and, enhance the financial management capabilities of transit professionals. The program conducts research, training, evaluations, and demonstrations. These projects contribute towards the goals of strengthening transportation's role in supporting the economy, supporting the safety of our transportation systems, strengthening the link between transportation and environmental policy, advancing U.S. transportation technology and expertise, and fostering intermodalism.

Under the Finance Program, Financing Techniques promote the use of innovative financing mechanisms that leverage Federal, State, local, and private sector assistance, support the reduction of the cost of capital through credit enhancement instruments, and encourage market based revenue strategies. Financial Management focuses on the on-going financial operation of transit agencies and Public/Private Partnerships embrace efforts to capture the value of transit infrastructure investments through public/private cooperation.

Accomplishments

Assisted transit agencies around the U.S. to successfully implement cross-border leases and capital leases thereby generating significant dollar savings and revenue for these agencies.

Conducted workshops on financing in Orlando, Los Angeles, and Washington, D.C. for transit agencies, metropolitan planning organizations (MPOs), and local and state governments on the opportunities and technical issues associated with creative financing techniques.

Developed a financial analysis model for MPOs, assisting in their implementation of the financial planning and analysis requirements of ISTEA and the CAAA. Transit agencies were provided with state-of-the-art information on asset management.

Completed a report on transit joint development, incorporating the experiences of the series of workshops conducted in 8 cities around the U.S. The workshops assisted communities to understand and capture the economic value from transit system investments, in turn, fostering more efficient and effective land use development.

Planned for FY 1995

Financing Techniques. Conduct studies on the opportunities and applicability of innovative infrastructure banking strategies, including securitization, to increase the efficiency of construction financing and private sector investment in transit infrastructure. One study will document different financial risk management practices in the transit industry and guidelines of good professional practice. These will enhance transit financial managers in allocating risk in operations and in new construction. Technical guidelines will be developed for use in implementing the new financial constraint requirements for metropolitan Transportation Improvement Programs and long-range transportation plans. The impact of inflation on multiyear funded FFGAs will be assessed.

Financial Management. Collect data on FTA sponsored projects that demonstrate the use of creative techniques in financing transit capital projects for preparation and dissemination of briefs. Provide training in transit finance for MPOs in areas with small- and medium-sized transit systems, and for cities developing new fixed guideway systems to address the financial planning and financial capacity analysis requirements of ISTEA and the Clean Air Act. These efforts will enable transit agency financial operations officers to improve their financial management capabilities. Assessment of the overall condition of State and local finances as they relate to transit for use in the Section 308 Report to Congress.

HUMAN RESOURCES AND PRODUCTIVITY PROGRAM	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$1,800	$1,390	$2,000

Background

Human resources and civil rights efforts continue to focus on efforts to attract, train and retain a quality workforce while continuing to support diversity in transit. The next ten years will place greater demands and requirements on the transit workforce as fewer employees enter the workplace, and employer competition increases for unskilled labor. In addition, changing technology, like the need for new skills, training, retraining and pressure to keep good employees in transit will focus efforts in support of the Industry's human resource needs.

Ongoing efforts will be made to assist DBE/WBE's in their efforts to seek opportunities in the transit marketplace. The impact of new technology and innovation will effect the business community and, more importantly, the transit service provider. The adverse impact of introducing new equipment and technology into service without proper training is often felt long after implementation. Plans for introducing technological change must include provisions for human resources education and training as well as support for operations and maintenance.

Objectives and Approach

The objectives of the Human Resources Management Program are to improve the performance and productivity of the transit labor force, while assisting the industry efforts to achieve diversity in its workforce and its business community. Recruiting and selection, training and education, business development opportunities for minorities and women, and increased employee involvement on the job, will all play important roles in achieving the overall transit goals of improved performance, increased mobility and cost effective operations.

Accomplishments

Conducted Civil Rights and Human Resources conferences geared to civil rights personnel, high-level transit officials and policy makers. Sessions were conducted in civil rights areas such as Titles VI and VII, EEO, and ADA, as well as workforce diversity. These well-attended conferences were seen as major successes, and provided excellent opportunities to share best practices and latest techniques in the civil rights arena.

Funded high school transportation academies in Washington, D.C. and Los Angeles. Students take transportation-related courses and participate in curriculum related internships at government and local transit agencies. This initiative creates and supports a pipeline to both continued education and job placement.

Outreach efforts have, for the first time, included a nonprofit Hispanic organization. Mi Casa of Denver, Colorado, is developing a training module for DBEs which will be replicated throughout the country.

Produced and distributed a resource guide and video depicting best practices in transit operations, maintenance and management at over 125 transit systems nationwide. This is the first such publication of its kind. It documents projects and programs geared to excellence in operations and customer service.

Planned for FY 1995

Training and Development. Focus on improved methods and techniques to train and retain current employees, and emphasize on linking job training at the high school and community college level to prepare the economic and social disadvantaged for job opportunities in transit. Projects will also be designed to assist grant recipients in implementing target programs for women, minorities and the disabled community.

University Research. Grants will be awarded to selected colleges and universities on a competitive basis, targeting historically black colleges and universities, as a means of maintaining interest in transit research and education by faculty and schools outside the University Transportation Centers Program.

Labor/Management Cooperation. Showcase best practices in labor and management cooperation using both transit and generic models and case studies. Activities will draw from cooperative efforts with transit labor, management, Department of Labor, and the private sector.

Assessment and Evaluation. Assess transit industry human resource practices in hiring and selection and compare with practices in private industry. Investigate the potential for assessment centers and aptitude tests to identify superior performance.

DBE/WBE. Efforts will continue to focus on assisting minority and women entrepreneurs to participate in the many contracting opportunities available in FTA grant programs. Special efforts will be made to assist transit agencies in meeting their DBE/WBE procurement goals.

Diversity. Comprehensive efforts will be made to develop seminars, workshops and demonstrations covering diversity efforts in recruiting, training, career advancement, glass ceiling issues and mobility.

INFORMATION PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$3,835	$3,800	$3,800

Background

The transit industry requires timely information on the latest technical innovations and techniques to effectively provide service to the public. An important element in the delivery of this information is a strong role by the Federal Transit Administration. In addition, FTA serves a unique function in assuring that decision makers, at all levels of government, are provided with the latest possible data on the condition, performance, and needs of the transit industry and the diverse roles it plays in our society and economy. The FTA Information Program will provide leadership to the transit industry in the delivery and retrieval of information and improvements to the dissemination process.

Objectives and Approach

There are three elements of the Information Program. They include Data/Information Generation which develops new information essential to policy development and program formulation; Data Management which is concerned with the development and maintenance of data bases; and, Dissemination which addresses the market for information sharing and the transfer of technology.

Accomplishments

Collected, analyzed, and disseminated Section 15 data to provide up-to-date information on transit operations and performance. The Section 15 reporting system has been streamlined so that grantees report more uniformly using new formats; and, profiles of performance have been added so that transit agencies can target operational improvements.

Based on local Transportation Improvement Plans and other local documentation, FTA has developed a method for estimating long term nationwide transit investment needs. These estimates will be reported to Congress in the biennial report on Public Transportation Condition, Performance and Needs.

FTA has strengthened its internal capability to manage data bases in civil rights enforcement, particularly with reference to Title VI and ADA enforcement and compliance.

Conducted experimental research to develop an Urban Transportation Performance Monitoring System (UTPMS) in which the condition, performance, and needs for transit and highway facilities can be measured by the same yardstick. Transit performance will be measured according to the functions it performs: 1) livable communities, 2) low-cost mobility, and 3) congestion relief.

Planned for FY 1995

Data/Information Generation. The 1996 Joint Highway and transit needs report to Congress will be prepared which will report on current conditions, performance and future needs.

Initial data will be generated for the intermodal UTPMS, which will support intermodal system performance evaluation and needs estimation.

Data Management. The Section 15 annual report on the performance of transit operations will be prepared, and software changes made to improve the efficiency of data processing and to improve the format and content of information in the report.

FTA will initiate the collection of nationwide data, based on selected transit systems, for specified transit services or functions, e.g., commuter or basic mobility services.

FTA will continue its civil rights enforcement efforts by strengthening and modernizing data management for initiatives under Title VI and ADA.

FTA will institutionalize its management of local planning documents to provide regular estimates to Congress on long term transit investment needs.

FTA will work with local decision makers to implement recent Federal requirements (Clean Air, ADA, etc.) using available funds.

PLANNING AND PROJECT DEVELOPMENT PROGRAM	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$2,500	$1,000	$2,000

The development and operation of a public transit system can require a significant investment of resources, both public and private. Since 1965, over $47 billion in Federal capital grants has been invested in the U.S. The demand for new major capital investments by the transit industry in vehicles, fixed guideways, stations and other facilities is estimated to be $75 billion over the next 10 years.

The planning and project development process generates information to help decisionmakers make wise choices on new transit investments and on the maintenance, rehabilitation and operation of current services and facilities. ISTEA and the CAAA emphasize the need for a strengthened planning process.

There are numerous opportunities to improve planning procedures and technical methods through the research program. These include the application of microcomputer-based analysis tools, the development of improved travel demand forecasting models, improved understanding of transportation and land use relationships, and the development and application of planning data. It has been over ten years since FTA has acted to advance the state-of-the-practice in operations planning. The transit industry has seen the emergence of new information systems and advanced technologies that could support local planning for more efficient and effective services and offer opportunities to address many of the issues in capital investment planning and engineering.

Improved planning and analysis tools will help enhance local planning procedures to meet the complex planning and programming requirements of ISTEA and the Clean Air Act. Such improvements will help ensure that scarce funds are used most effectively.

Objectives and Approach

The primary objective of the Planning and Project Development Program is to develop techniques to help support informed decisionmaking by state and local officials, transit agencies, and the Federal government. These planning techniques may support decisionmaking on new capital investments, new transit services, new operating strategies, or the efficient utilization of existing facilities and equipment.

The Planning and Project Development Program is divided into five elements. The staff support element provides assistance to FTA in its reviews of local planning processes and studies. It also provides staff support in other planning and project development areas. The system planning element develops improved techniques for use by local and State transportation planners to enhance the ISTEA-mandated metropolitan planning process. The corridor/project planning element develops techniques for more detailed planning studies of investments at that level. Such techniques would improve local capabilities in the alternatives analysis, environmental impact assessment, and preliminary engineering phases of project development. The operational planning element seeks to identify proven methods to help transit agencies develop new services, operate existing facilities and equipment more efficiently, and evaluate innovative strategies for improving service, pricing and marketing. The engineering management element seeks improvements associated with new procurement methods and improved project management during preliminary engineering, design and construction.

Accomplishments

Developed technical data, guidance and information on best planning practices to help local planning agencies and transit authorities conduct various planning studies, alternatives analyses, and environmental impact studies. In the past year, guidance was issued on travel demand forecasting, financial analysis, and the estimation of operating and maintenance costs.

Developed a series of reports on HOV systems. These included the characteristics of existing HOV projects, the history and institutional arrangements that led to these projects, and procedures for evaluating HOV projects. This information assists in the planning, implementation and evaluation of HOV systems.

Provided guidance and technical support to transit agencies to improve their revenue management in areas such as fare restructuring, employer-based transit subsidy programs, leasing and advertising revenue enhancements. The support was provided for areas across the country including New York, Boston, Philadelphia, Atlanta, Chicago, Cleveland, Kansas City, Los Angeles, Sacramento, and Seattle.

Prepared a report entitled "Light Rail Transit Capital Cost Study" which documents the actual construction and acquisition costs for the most recently constructed light rail transit systems in the United States. This report provided a base of information to help planners of future light rail systems make better cost estimates.

Prepared a report entitled "Characteristics of Urban Transportation Systems" which updates information helpful in estimating the performance characteristics of urban transportation modes including light rail, heavy rail, bus, auto, automated guideway and pedestrian assistance systems during planning. With this report, transit systems will be able to gauge their performance and compare it with other transit systems of similar characteristics. The information enables planners to do sketch planning on proposed new systems.

Planned for FY 1995

Staff Support. Staff support will continue to be provided for the ISTEA-mandated review and certification of metropolitan planning, alternatives analysis studies, and the turnkey demonstration program. This support will supplement FTA staff resources with necessary technical expertise in several subject areas including travel forecasting, engineering and costing, financial analysis, environmental assessment, and procurement.

System Planning. Guidance will be provided to local planning bodies and transit agencies to help them carry out the new planning requirements of ISTEA and the Clean Air Act. Procedures will be developed, tested and documented on how planning agencies can use geographic information systems to enhance transit planning.

A "Technical Resource Center" will be established to assist planners in using the latest travel demand modeling techniques. Travel demand modeling will be advanced with new approaches--several based on mathematical and computer technology from the defense industry. These procedures will help transit agencies use travel demand models that are more reliable in predicting future usage of transit facilities and services.

Criteria will be developed to evaluate and compare multimodal alternatives in regional planning, corridor planning, and programming. An organizational study will be made to identify and evaluate different ways to conduct multimodal planning. A summary of best citizen participation practices for the planning process mandated by ISTEA will be developed.

Several projects will help improve the linkages between transit and land use. Data will be collected on parking costs and requirements in transit oriented developments. This will help local planners avoid the construction of potentially counter-productive and unnecessary parking, while promoting transit use. A report will be compiled on transit oriented zoning including excerpts from local zoning ordinances. A manual will be developed to help local planners forecast population, employment, and density in CBD's and transit station areas.

Corridor/Project Planning. Efforts will continue to improve procedures and techniques for use by transit planners for cost estimation, site planning, and transit access modeling. Information on the land use impacts of transit projects will be updated. A Transit Capital Price index modeled after the Highway Construction Price Index will be developed. This index will provide more descriptive cost estimation factors than is currently available for transit construction. Environmental guidance will be developed on vibration impact assessment and hazardous waste. Design guidelines for HOV stations will be developed. Case studies will be developed on corridor preservation techniques. The demand, supply, performance and cost characteristics of intermodal terminals will be compiled as a data base for use by transportation planners.

Operations Planning. Route-level cost and demand models will be updated to be used with personal computers and to make use of geographic information systems for data manipulation by planning and operating agencies. The transit operator planning, diagnostic, and optimization model will be updated to incorporate a wider variety of labor constraints and operating periods. Transit agencies will benefit significantly from an update of these planning tools for use in contemporary personal computers and to include emerging labor and operational issues. An evaluation will be conducted of the various methods currently in use for the distribution of transit passes. A demonstration will be conducted of strategies and analytical techniques used to allocate fares, revenues, and costs for intermodal passes. An evaluation will be made of the impact of the employer transit pass tax incentive program. Transit agencies and major employers need this documentation to better plan and implement their various services and to predict the impacts on carpools and transit ridership. A course in transit operations planning will be presented to FTA personnel.

Engineering Management. Reviews will be conducted of the state-of-the-practice in preliminary engineering of major capital investments. Model contracts for turnkey procurement will be developed. A review of transit construction organizations will be performed. Best practices in project controls will be identified. A report will be developed on the assessment of cost and scheduling risk.

POLICY ANALYSIS AND EVALUATION	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority:	$1,400	$990	$1,000

Background

The Policy Analysis and Evaluation Program allows FTA to be on the cutting edge of improvements for its customers. Efforts include a continuing process for development of systematic, state-of-the-art information in support of FTA ideas and decisionmaking. The program includes evaluation of the likely impacts of FTA decisions, the status of efforts to carry them out, and measurement of their results.

Objectives and Approach

Ongoing studies in this area include: evaluations of the trends, conditions, and performance of the transit industry; establishing objectives for FTA's programs; developing and evaluating legislative and policy initiatives; ensuring that National and Departmental goals are reflected in agency initiatives, including outreach to constituencies to promote legislative and policy objectives; and evaluating the effectiveness of FTA's policies, programs, and projects. These efforts strengthen transportation's role in supporting the economy, strengthen the link between transportation and environmental policy, advance U.S. transportation technology and expertise, and foster intermodalism.

Accomplishments

Recurring Congressionally-required reports were submitted to the Congress in accordance with Section 308 and Section 3(j). For the second time, in 1994, FTA and FHWA intend to jointly submit to Congress an intermodal highway/transit conditions, performance, and needs report (308). The report will include estimates of transit needs based on the costs to maintain and improve performance. The Section 3(j) report, which makes recommendations on the allocation of New Fixed Guideway Systems and Extensions funds for FY 1994, was submitted before the 1994 Congressional hearings for the first time.

Workshops to educate state and local officials were developed on flexible funding for transit projects. Workshops were conducted around the U.S., focusing on changes in the planning process, project eligibility under various ISTEA programs, and case studies of successful multimodal project selections.

Analyses supported the biennial intermodal reports to Congress on transit and highway condition, performance, and needs. These collected improved data on transit facility and equipment conditions and investment plans and analyzed economic performance of transit. Assessment of travel behavior, transit's market, and transit performance was also conducted.

With joint FTA/FHWA sponsorship, analyzed the feasibility of congestion pricing, concluding that local areas should consider pricing as a means to manage the demand for automobile travel. A grant was awarded to implement congestion pricing along with enhanced transit for the Oakland Bay Bridge corridor serving San Francisco. This represents the first genuine demand management highway pricing effort on a heavily traveled facility in the U.S.

Studies were initiated on the longer term impacts of existing major transit investments, including the BART and MARTA systems. The studies will document the impact of the investments since their openings, particularly in the transportation system, land use, and urban development.

Studies were conducted to improve the criteria used for evaluating proposed major new investments, based on ISTEA changes to the Section 3(i) criteria for New Starts.

Outreach workshops and a guidebook on best practices of collaborative decisionmaking for MPOs were completed to facilitate broader community participation in the transportation decisionmaking process under the new ISTEA planning regulations.

Planned for FY 1995

Initiate studies on the longer term impacts of additional and existing major transit investments, including the Houston and San Diego systems. The studies will document the impact of the investments since opening, particularly in the transportation system, land use, and urban development. Studies of the BART and MARTA systems will be completed.

Continue to conduct workshops to educate state and local officials on the use of flexible funding for transit projects nationwide and focus on changes in the planning process, project eligibility under various ISTEA programs, and case studies of successful multimodal project selections.

Develop a method for collecting transit performance data according to a functional classification scheme. Development of a functional classification system will permit transit performance to be disaggregated, providing a more accurate portrayal of transit's diverse economic roles.

Review transit financial planning experience to determine how the new ISTEA requirements can best be met by States, MPOs, and transit operators. Assess the experience of transit planning to determine effective methods of implementing ISTEA's financial planning requirements.

Evaluate strategies to enhance the customer orientation of transit services. These include neighborhood based services that could better meet narrow transit market niches.

The Oakland Bay Bridge Congestion Pricing Pilot Project is expected to open in early 1995. Transit is a major component since BART and Alameda County Transit buses must provide alternate service for those priced off the Bridge. Most of the revenues from the congestion pricing are expected to fund operating costs for expanded transit services. FTA will record the implementation of congestion pricing and uses of revenues, building on earlier feasibility studies.

Continue work on collaborative decisionmaking that enhances community and private sector participation in intermodal transportation planning. Demonstrations of best practices at three MPOs will be completed. A national conference will be conducted to disseminate information on the best practices now being used by MPOs to increase community and private sector participation in regional planning to implement ISTEA's new public participation process.

REGIONAL MOBILITY PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$2,450	$2,500	$2,500

Background

The Regional Mobility Program was created to be a catalyst for local action to address community mobility problems using relatively low cost, innovative management strategies. Mobility problems come in various forms. For example, too much traffic demand for roadway systems can cause congestion, delays, accidents, air quality deterioration, lost business opportunities, and increased business and personal transportation costs. Mobility problems also include the difficulties of persons without cars to get to jobs, stores and medical services that are located without access to public transit services.

Objectives and Approach

The Regional Mobility Program focuses on a variety of objectives. The Program assists local communities to reduce dependence on, and encourage alternatives to, single occupant auto travel in metropolitan areas. It promotes multi-modal and intermodal decisionmaking aimed toward increasing social and economic opportunity, increasing mobility and reducing traffic congestion; encouraging a greater variety of transportation choices. It strives to improve the mobility of those without easy access to transportation, including the rural poor, persons with disabilities, and elderly persons. It also works to encourage a greater variety of transportation choices. Lastly, the Regional Mobility Program encouraging a comprehensive mix of land use transportation management and innovative service techniques in local communities that enable a more livable environment.

The Program elements include: Congestion Management which focuses on actions such as transportation demand management (TDM), congestion pricing, and telecommuting that help reduce single occupancy auto trips and encourage transit ridership; Innovative Transportation Services which focuses on new marketing and service strategies; Rural and Specialized Transportation which addresses the personal mobility problems of people who are isolated and/or lack opportunity to access transportation; and, Livable Communities which encourages local communities to plan and adopt a more coordinated and comprehensive set of site-specific land use and transportation management and service strategies that enable a more livable environment.

Accomplishments

Provided technical assistance to over 65 communities across the country to help implement specific measures to relieve traffic congestion and increase transit usage.

Prepared, jointly with FHWA, a comprehensive six-part guidance manual on TDM measures. This very important training and reference document will be a valuable aid to those public agencies and private organizations responsible for planning and implementing TDM measures in compliance with ISTEA, the Clean Air Act and other state and local regulatory congestion management and air pollution requirements. Developed a microcomputer program to enable employers, developers, and local governments to collect and analyze data on TDM programs. Developed a model technique for use by transit planners for analyzing the interactions of TDM strategies and land use scenarios.

Supported (with OST, FHWA and RSPA) a congressionally mandated study on the transportation implications of telecommuting. The study forecasts a growing percentage of the U.S. workforce who will telecommute.

Assisted the Los Angeles County Metropolitan Transportation Authority to begin the development of a satellite telecommuting center in Rancho Palos Verdes, California and to study its transportation effects.

Prepared and distributed through the Consortium for Regional Mobility, a quarterly newsletter and selected monographs on high-occupancy vehicle programs and innovative TDM techniques that will assist local public decision makers in improving their regional transportation flow.

Initiated multi-operator negotiable transit voucher programs that encourage employees to ride transit to work in the New York City, Philadelphia, Los Angeles, and Washington D.C. metropolitan areas. Thousands of transit vouchers are now sold monthly in each area.

Implemented a market-based fare program for the Chicago Transit Authority which resulted in increased revenue without the usual loss of ridership.

Provided training and technical assistance which have enhanced the expertise and management of rural transit operators; developed a video-based training package and a promotional kit which has been distributed to state Departments of Transportation; and developed cost effective rural transportation innovations.

Provided start-up assistance to over 100 organizations, including public housing councils, business community groups, transportation management associations, civic groups, and a variety of private bus and taxi operators to initiate new transportation services that were not being provided by public transportation operators.

Established twelve transportation management associations which have facilitated public and private sector cooperation in the development of effective TDM actions.

Planned for FY 1995

Congestion Management. Evaluations will be conducted of various transportation demand management strategies and innovative service concepts and their effectiveness in increasing transit use and reducing single occupant auto travel. Congestion pricing implementation plans will be developed in metropolitan areas. The plans will help introduce variable pricing schemes that will have a direct benefit to increasing transit and multi-occupancy vehicle use. Continued support will be provided to the Consortium for Regional Mobility to prepare newsletters, conduct outreach, and conduct technical workshops to promote regional mobility. Studies and implementation plans will be prepared to introduce various telecommuting strategies. A guidelines manual will be prepared to assist local planners and employers in the start up of satellite and stay at home telecommuting centers.

Innovative Transportation Services. Plans will be developed, and demonstrations will be conducted, on selected innovative employer-based strategies involving transit services. The Joblinks Program will be expanded to provide increased transportation services to unemployed and underemployed persons.

Rural and Specialized Transportation. Continued assistance will be provided for the Rural Technical Assistance Program Resource Center, training material development, the peer-to-peer matching program, technical assistance, research initiatives, the Rural Research Clearinghouse and the toll-free telephone hotline. Selected joint project initiatives will be conducted with various Department of Health and Human Services operating administrations. Assistance in the development and demonstration of a Texas statewide coordinated transportation program will be accomplished.

Livable Communities. Technical assistance will be provided to various local public and non-profit agencies to cooperatively plan and implement a variety of site-specific land use and transportation management actions and services that result in more livable communities. Possible actions could include: neighborhood shuttle services to existing rail and bus stations; station designs that include amenities such as day care centers, convenience stores, health facilities and training facilities; and, increased transit for unemployed and underemployed persons in inner city areas.

SAFETY AND SECURITY PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$1,000	$900	$1,000

Background

The Safety and Security Program is designed to assist the transit industry as well as state and local authorities in providing the highest practical level of safety and security for the passengers and employees of the Nation's public transportation systems. Ensuring and promoting the safety of our transportation systems is a primary mission of the Department of Transportation. This includes FTA's own oversight role as well as grants to State and local governments to improve transportation safety.

A safe transit environment projects a positive image to the public, resulting in increased patronage and transit income, reduced operating costs, improved performance, and enhanced working conditions. A healthy transit industry requires the elimination or control of unintentional hazards to passengers, employees and the public and protection against intentional personal injury or property loss.

Objectives and Approach

The goals of FTA's Safety and Security Program are (a) to prevent and reduce accidents and incidents, and (b) to minimize and control the effects of accidents and incidents that do occur. TPR includes programs for developing innovative and more effective means of ensuring transit safety and security as well as developing and offering training courses for transit employees. Data collection, analysis and information sharing enable all levels of government to conduct informed oversight of the safety of transit systems. A management information system will assist FTA in monitoring implementation of drug and alcohol regulations.

Recognizing safety and security as a local responsibility, the program objectives are realized through technical assistance which supports the fundamental activities associated with operating safe transit systems. These activities include:

- Transit Security. FTA has an ongoing security program that includes training in System Security. In 1992, FTA conducted a workshop which examined the relationship between transit security and the environment of crime, gangs, drugs and vagrancy within the community. At the direction of the Administrator, a major security initiative is an FTA priority. An expanded FY 1994 Security Program is in preparation which will include a new System Security training course. The 1995 Safety and Security Program is expanded to encompass FTA's efforts to make transit secure.
- Training of transit professionals through the Transportation Safety Institute to spread safety and security knowledge to the working levels within the transit industry;
- Analysis of performance indicators by utilizing data on transit safety and security problems.

Accomplishments

Since 1979, the Transportation Safety Institute (TSI), supported by FTA, has provided safety and security training covering a full range of bus, rail, and safety courses and seminars. To date, over 25,000 persons have received training through the TSI program. Some trainees attend courses at TSI in Oklahoma City; others receive training at their own local systems from instructors who had been prepared through TSI's Train-the-Trainer programs. As a result of these training programs, improvements have been made in accident prevention, accident reduction, and a more secure environment for transit patrons and employees.

A workshop was convened to explore new security concepts in managing social problems, which impact transit systems and their passengers and employees, such as: gangs and other sources of ethnic and cultural conflict; homelessness; and how order and cleanliness contribute to a safe and civil transit environment.

The Omnibus Transportation Employee Testing Act of 1991 mandates the Department of Transportation (DOT) to implement substance abuse management programs in various transportation industries for safety-sensitive employees. As a result, Notices of Proposed Rulemaking on drug and alcohol testing in the mass transit industry were published by FTA in the Federal Register on December 15, 1992. It is anticipated that final rules will be published in January of 1994. An in-depth nationwide survey was conducted to determine the extent of substance abuse in the transit industry. Responses were summarized in a final report on the state-of-the-practice of substance abuse management. Three technical assistance packages which help transit systems design comprehensive substance abuse management programs were developed: implementation guidelines, a random testing manual, and a training module for supervisors making referrals of subordinates for reasonable suspicion drug testing. Over 6,000 copies of the implementation guidelines were distributed.

A series of technical reports was published dealing with emergency management practices including fire safety countermeasures, response procedures and evacuation guidelines for disabled passengers. Substantially completed an emergency management course using innovative training techniques.

Planned for FY 1995

Regulatory Support. Provide assistance to grantees and States to implement the Federal requirements for drug and alcohol testing of safety-sensitive employees and for state safety oversight through the development and dissemination of training materials and technical guidance. Continued development and implementation of management information systems to monitor compliance and evaluate the drug and alcohol testing programs and the state safety program.

Industry Support. Provide training for approximately 3,000 students through the TSI training program on subjects that include System Safety, Accident Prevention and Investigation, System Security, Emergency Management and Alternative Fuels Handling. Collect, analyze, and publish safety and security data including patron and employee deaths and injuries. Provide outreach to the transit authorities through the dissemination of timely safety information and maintaining a national clearinghouse and computer bulletin board on safety and security matters.

Security. Provide technical assistance to transit systems seeking to replace traditional security strategies with more proactive and creative approaches. Facilitate information exchange by conducting case studies, publishing state-of-the-art materials and providing a forum to explore new trends and technological innovations.

TECHNOLOGY DEVELOPMENT PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$3,100	$7,695	$6,775

Background

The Clinton Administration is committed to the effective use of technology in meeting national objectives. Sound technological investments can promote long-term economic growth that creates jobs and protects the environment; can make government more efficient; and can provide the basis for national leadership in tying new technology application to economic growth. The Department's research and development program not only supports its operating and regulatory responsibilities, but also serves as a catalyst to promote productivity improvements and new technology for transportation systems and services in support of the Nation's economy. Effective introduction of technological progress will pay dividends for decades to come.

The primary goal of the Technology Development Program is to identify and optimize the use of technology to improve efficiency, and to assist in the economical introduction of technologies into transit system use. New methods are needed for overcoming traditional barriers to the use of innovative methods, techniques and equipment in transit so that more efficient and reliable transit service will be provided which meets customer needs.

While the transit manufacturing industrial base has continued to shrink as a result of reduced investment in transit, a corresponding decline in the competitiveness abroad hampered the U.S. transit industry. However, in the years ahead, investment in new systems, line extensions and major infrastructure rebuilding projects will increase.

This increased activity in transit construction and service will lead to an increased demand for improved technologies that reduce costs, improve environmental acceptability, and system reliability. The transit industry needs to introduce innovation into its equipment and facilities, which will better serve its customers. Promising technologies developed for military or commercial applications are ready for development into transit products. The transit marketplace cannot support such development relying upon private investment alone. Successful development of such technologies would not only provide needed innovation for U.S. domestic transit systems, but also improve the competitiveness of U.S. transit products in world markets.

Technology Development activities will complement the ARPA Technology Reinvestment Project. They will also complement DOE alternative fuel propulsion technology development by ensuring that advanced transit bus vehicles will be ready to use the new propulsion systems. They will be coordinated with the Advanced Technology Program of the NIST of the Department of Commerce.

Objectives and Approach

The Technology Development Program objectives are to: reduce operations and maintenance costs; modernize existing systems; test innovative technologies and proven new systems; improve supply industry competitiveness in the world-wide marketplace; support more reliable and efficient transit service to the public; and disseminate information on innovative technologies.

The Program has been developed through a series of aggressive outreach efforts that ensures that industry needs and priorities remain an integral part of the overall effort. Among these outreach efforts are meetings of the Transit Industry Technology Development Advisory Committee and FTA Planning and Research Priorities Workshops.

Accomplishments

The Carnegie Mellon University (CMU) Energy Management Model. Developed with FTA and FRA funds for under $1 million, the model simulates the operation of rail transit systems with accuracy of better than 10 percent in the prediction of energy consumption. The model has been used by 4 transit authorities to provide realistic information on operational strategies to reduce energy consumption, as well as providing detail information to the authority during rate negotiations with utilities. It has saved those agencies that have applied the results of the simulations with immediate actual dollar savings of $19 million. The program continues into FY95 with a goal of saving over $45 million in energy costs through improvements in energy design and train operations.

Rail transit slide-through fare collection Pass Reader. Originally developed by the CTA with some $500 thousand in FTA funds about 10 years ago, the technology has been emulated by the MBTA, SEPTA and is now being adopted by North America's largest transit system--the NYCTA. The slide-through reader (unlike the WMATA type ticket reader) is held by the patron while going through a turnstile and value is deducted from the pass. It is fast and reliable.

The AC Propulsion Demonstration Program. Funded by FTA for about $7 million in the 80's, this project became the forerunner for the latest propulsion systems now being ordered by transit operators when purchasing new rail transit cars. The purpose of FTA's program was to develop this technology to demonstrate its performance, and to assure that it would be fully compatible with existing signal systems. Today, the units operate in New York, Philadelphia, Boston, Baltimore, New Jersey, and will be soon retrofitted onto cars in Washington. AC Propulsion saves on maintenance costs and it reduces energy costs through its efficient regeneration.

The Electromagnetic Magnetic Compatibility Program. As a direct result of major electrical compatibility problems between chopper propulsion and signal systems in Chicago and Atlanta, the FTA formed a technical group made up of propulsion and signal experts from the supply industry. Over a three year program, the technical group developed a set of industry standards to eliminate the interference problems. In Atlanta, the program was responsible in assuring that the rail system would open on time, and be fully safe. Since the completion of the program, all purchases of new transit cars have used the standards to assure proper integration of the car and its propulsion system with existing signal systems. Most recently the standards were used on the Northeast corridor to assure compatibility between the NJT commuter transit cars and the existing AMTRAK signal system. The program investment was less than $1 million, while the benefits have saved millions of dollars as well as prevented collisions.

Construction Management and Quality Assurance Guidelines. As a result of serious construction problems, cost overruns and schedule slippage on major transit capital projects, FTA funded the development of several "guideline" documents to improve the management of projects advanced by FTA grantees. The most comprehensive is the "Project and Construction Management Guidelines" which supported congressional requirements for more effective transit project management. It integrated other FTA technical assistance products related to quality assurance and quality control, project management plans, project management oversight, value engineering, and construction insurance. The Guidelines describe the transit capital project development process from planning and design through construction and start-up and apply principles of project management to each of the seven development phases. The guidelines are utilized as a resource for managing construction of facilities by grantees, their consultants, FTA regional staff, and PMO contractors. The guidelines cost about $500 thousand, while their use now saves millions.

The Rail Car Cost Containment Project. Initiated by the FTA in the late 80's to reduce and stabilize the cost of new rail cars, the process has saved over $200 thousand per car by METRA in Chicago. The project was initiated with a grant to four agencies who, working with consultants, developed a process of analyzing their technical and procurement specifications to modify the procurement process practices and to save cost.

Advanced Technology Transit Bus (ATTB). Through a grant agreement with the Los Angeles County Metropolitan Transit Authority (LACMTA), initial design of a new technology transit bus has been completed. The bus will meet clean air, weight, and accessibility mandates, while offering transit operators improved performance, maintainability, and life-cycle costs. Detail design of the bus is currently underway--fabrication of the first prototypes is expected to be completed by in 1995.

Planned for FY 1995

The Subway Environmental Simulation Model (SES). Developed in the late 70's for approximately $4 million in funds the model was originally developed to predict and control air flow and temperature requirements to maintain comfortable temperatures in tunnels and underground stations. It was later expanded to include a fire model to address elimination of heat and smoke in the event of a major tunnel fire. This portion was never validated due to the expense. Today, as a result of fire and smoke tests being conducted in West Virginia for the Boston Central Artery Project, data is being made available which can be used to validate the empirical coefficients in the model. This coming year the FTA will validate the model, fund the conversion of the model to a Personal Computer (PC), distribute the software via NTIS, and develop a guideline document to assist the industry in designing and maintaining rail tunnels that are fire and smoke hardened. Even un-validated, the model is used world wide for every major transit or rail tunnel designed and built since the mid 70's. Existing software, now used only on large mainframe computers, is maintained by TSC and continues to be supplied world-wide on request.

Advanced Signal and Control Technologies. While initially funded by the FTA in the 70's and early 80's the direct application of this technology never developed due to cancellation of this program in 1985. The FTA concept is now the basis for the efforts going on at both BART and NYCTA to improve capacity of rail systems by closer spacing of trains without the necessity of civil works to lengthen platforms. In FY 1995, the FTA will provide development funds matched by transit authority funds to develop this technology for the rail transit industry. This technology is moving forward, and major funding from FTA is required to assure that the technology meets the broadest transit applications as well as assure a competitive supply industry.

Rail Transit Clean Air Program; Energy reduction. Initiated in the 1980's, the energy management program develops software computer models, guideline documentation for reducing energy consumption, studies for reviewing alternative sources of power, training programs for the rail industry on techniques to reduce energy costs, and detail information for transit authorities used during rate negotiations with utilities. To date, it has saved transit agencies actual dollar savings of $19 million. The program continues into FY95 with a goal of saving over $45 million in energy costs through improvements in energy design and train operations. Through the application of the energy conservation techniques, the utility industry will reduce its need to expand fuel burning power plants. The program is matched with funds from suppliers of energy equipment and the electric utility industry.

The Advanced Technology Transit Bus (ATTB). Recognizing the need for a new generation bus incorporating a low floor as well as meeting the weight limitations of the nations highways, a development program was initiated by the FTA in conjunction with the LACMTA. The bus development project includes innovations such as light weight, high strength composite materials for the structure and body paneling, a low floor to better accommodate the provisions of the ADA, advanced electronics capable of interfacing with position-locating systems, and advanced propulsion systems that will meet the cities clean air standards. In FY95, the project will continue the development of a bus with improved performance, affordable economy, increased accessibility, and reduced life cycle ownership. The domestic market for such an advance bus could be more than 3,500 vehicles annually with a comparably sized export market.

TRANSIT ACCESSIBILITY PROGRAM

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority	$2,000	$2,100	$2,100

Background

The Americans with Disabilities Act of 1990 serves to eliminate discrimination against individuals with disabilities and requires transit agencies to operate accessible vehicles and services. The primary goal of the Transit Accessibility Program is to improve the quality of life through mobility by creating user-friendly services for persons with disabilities. In general, the Program is designed to address the increased demands on transit created by the ADA. To tackle the numerous challenges of accessibility, the FTA assumes a leadership role in constructing and facilitating partnerships between disabled persons, manufactures, transit operators, transit experts, and the general public.

Objectives and Approach

The objective of the Transit Accessibility Program is to assist the transit industry in developing technology to conform to the implementation requirements of the ADA and accommodate individuals with special needs. The specific research objectives are to: focus on cost-effective, high impact and implementable projects; to emphasize safety improvements to benefit persons with disabilities; and to use technology sharing strategies as a tool for collaboration on research and development with other agencies and organizations.

The Transit Accessibility Program strives to address the needs of all persons with disabilities, including those in wheelchairs and persons with visual, hearing, and other physical or mental impairments.

The outreach program includes the dissemination accessibility guidelines, the conduct of workshops and demonstration projects, and on-site visits to assist State and local transit agencies in implementing the ADA requirements. Publications provide details on the costs, safety, operations and maintenance procedures, and the impacts of ADA compliance on overall transit system performance. Operational tests of new and improved technologies are evaluated to assess the viability of innovative adaptations of various technologies to meet accessibility and operational objectives.

Accomplishments

The Transit Accessibility Program serves to assist the transit industry in developing technology to conform with the requirements of the ADA. As part of this effort, the FTA has prepared guidance documents to assist the transit industry in complying with the ADA; including updated standards for wheelchair lifts, ramps, and securement devices , as well as providing training materials. Numerous programs have been conducted to demonstrate new technologies in revenue service to evaluate their suitability in a transit environment. Some of these technologies are now becoming commonplace in the transit industry.

Planned for FY 1995

Specialized Transportation. The National Easter Seal Society's Project ACTION will continue research and local demonstration projects of new and innovative policy initiatives and technologies that improve the effectiveness of providing public transportation services for persons with disabilities.

ADA Studies. Document and disseminate existing exemplary practices and procedures to assist transit agencies in improving their individual accessibility programs. This effort will include; paratransit eligibility; programs to encourage fixed route service for the disabled; and exemplary procedures and practices used in providing paratransit and fixed-route services.

Continue research into the detectability and durability of various products that can be used as tactile detectable warning surfaces for rail platform edges and on slopes (such as on curb ramps) to meet the requirements of the ADA regulations.

Perform studies to determine the equipment and facility improvements needed to overcome mobility barriers. Special emphasis will be placed on the problems and safety issues of the securement of wheelchairs and other mobility aids, as well as standees on lifts.

Guidance in the form of video tapes and reports will be used to train the disabled community on using the transit systems, and to train operators in the provision of transit service for persons with disabilities.

Evaluate the effectiveness and practicality of electronic changeable message signs and outside speakers used on transit buses and railcars to communicate with persons with visual or cognitive impairments. Prepare guideline specifications for improvements in sign legibility and speaker audibility.

Evaluate the effectiveness and practicality of assistive listening devices used in transit buses and railcars to communicate with persons with hearing, visual or cognitive impairments.

ADA Safety Reviews. On-site safety audits of the implementation of accessibility requirements regarding transit equipment and facilities will be conducted to review: accident data for persons with disabilities; maintenance and training procedures for accessibility equipment; and the proper installation of the accessibility equipment. Based on the audits, a set of recommendations for specific research and development projects for correcting the problems found will be prepared.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
MISCELLANEOUS EXPIRED ACCOUNTS
Program and Financing (in thousands of dollars)

Identification code 69-9913-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
00.01	Waterborne		22	
10.00	Total obligations (object class 41.0)	...	22	...
	Financing:			
21.40	Unobligated balance available, start of year	(22)	(22)	...
24.40	Unobligated balance available, end of year	22	...	...
39.00	Budget authority (gross)	...	...	...
	Relation of obligations to outlays:			
71.00	Total obligations	...	22	...
72.40	Obligated balance, start of year	59,084	50,346	21,164
74.40	Obligated balance, end of year	(50,346)	(21,164)	(10)
77.00	Adjustments in expired accounts	(363)	...	...
90.00	Outlays	8,375	29,204	21,154

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
MISCELLANEOUS EXPIRED ACCOUNTS
STATUS OF DIRECT LOANS
(in thousands of dollars)

Identification code 69-9913-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Cumulative balance of direct loans outstanding:			
1210	Outstanding, start of year	177,000	177,000	...
	Repayments:			
1251	Repayments and prepayments	...	(177,000)	...
1290	Outstanding, end of year	177,000	...	...

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
MISCELLANEOUS EXPIRED ACCOUNTS
STATUS OF GUARANTEED LOANS
(in thousands of dollars)

Identification code 69-9913-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Cumulative balance of guaranteed loans outstanding:			
2210	Outstanding, start of year	820,000	820,000	...
2251	Repayments and prepayments	...	(820,000)	...
2290	Outstanding, end of year	820,000	...	...
	MEMORANDUM:			
2299	Guaranteed amount of guaranteed loans outstanding, end of year	820,000	...	...

PROGRAM AND PERFORMANCE STATEMENT

MISCELLANEOUS EXPIRED ACCOUNTS

These schedules display programs that no longer require appropriations and thus reflect obligations and outlays made under prior year appropriations. Among these programs is the general funded appropriation for Discretionary grants for 1983 and earlier years.

APPROPRIATION LANGUAGE

Trust Funds

DISCRETIONARY GRANTS

(LIMITATION ON OBLIGATIONS)

(HIGHWAY TRUST FUND)

None of the funds in this Act shall be available for the implementation or execution of programs the obligations for which are in excess of [$1,785,000,000] *$1,517,000,000* in fiscal year [1994] *1995* for grants under the contract authority in section 21(b) of the Federal Transit Act: *Provided*, That notwithstanding any provision of law, there shall be available for fixed guideway modernization, [$760,060,000] *$760,000,000;* there shall be available for the replacement, rehabilitation, and purchase of buses and related equipment and the construction of bus-related facilities, [$357,000,000] *$327,000,000;* [and] there shall be available for new fixed guideway systems *$400,000,000, to be available as follows: $33,770,000 for Dallas South Oak Cliff LRT; $111,700,000 for the Portland Westside LRT Project: $4,469,000 for the St. Louis Airport Project; $184,300,000 for the Los Angeles Metro Rail (MOS-3) Project; $62,540,000 for the New York Queens Connection Project; and $3,000,000 for activities under section 23 of the Federal Transit Act, as amended; and there shall be available for a Livable Communities Initiative under section 3 of the Act, $30,000,000.* [$667,940,000, as follows-

$10,000,000 for alternative analysis only for the South Boston Piers Transitway Project;
$24,090,000 for the Chicago Central Area Circulator Project;
$800,000 for the Cleveland Dual Hub Corridor Project;
$9,500,000 for the Boston, Massachusetts to Portland, Maine Commuter Rail Project;
$40,000,000 for the Dallas South Oak Cliff LRT Project;
$39,000,000 for the Houston Regional Bus Plan Program of Projects;
$62,500,000 for the New Jersey Urban Core;
$170,000,000 for the Los Angeles Metro Rail MOS-2 and MOS-3 Projects;
$3,600,000 for alternatives analysis, preliminary engineering, and environmental analysis for the New Orleans Canal Street Corridor Project;
$1,000,000 for the Northeast Ohio Commuter Rail Project;
$500,000 for the South Jersey alternatives analysis;
$15,500,000 for the Orange County Transitway System Project;
$36,700,000 for the Pittsburgh Busway Projects:]
[$65,000,000 for the New York Queens Connection Project;
$3,000,000 for the Orlando Streetcar Project;
$83,500,000 for the Portland Westside LRT Project;
$1,000,000 for the Sacramento LRT Extension Project;
$28,200,000 for the San Francisco Airport BART Extension Project and the Tasman Corridor LRT Project;
$3,000,000 for preliminary engineering only for the Salt Lake City South LRT Project;

$15,200,000 for the St. Louis METRO Link LRT to Airport Project;
$10,000,000 for the Florida Tri-County Commuter Rail Project;
$2,800,000 for preliminary engineering only for the Twin Cities Central Corridor Project;
$23,500,000 for the Maryland Commuter Rail Project;
$8,000,000 for the Wisconsin Central Commuter Line Project;
$3,000,000 for the Lakewood Freehold and Matawan or Jamesburg Commuter Rail Project;
$6,7000,000 for the Hawthorne-Warwick Commuter Rail Project;
$1,350,000 for alternatives analysis for Cincinnati, Ohio Commuter Rail ; and
$500,000 for Memphis, Tennessee Regional Rail Plan: *Provided further*, That Public Law 102-388 is amended under Federal Transit Administration, "Discretionary grants" by deleting "not less than $76,500,000 for the Honolulu Rapid Transit Starter Line of Projects;" *Provided further*, That of the funds affected by the preceding proviso, $10,000,000 shall be for the South Boston Piers Transitway, $8,500,000 shall be for the Chicago Central Area Circulator Project, $4,000,000 shall be for the Dallas South Oak Cliff LRT Project, $1,000,000 shall be for the Houston Regional Bus Plan Program of Projects, $5,000,000 shall be for the Pittsburgh Busway Projects, $3,000,000 shall be for the Milwaukee, Wisconsin East-West Corridor Project, and $45,000,000 shall be allocated at the discretion of the Secretary.] *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

MASS TRANSIT CAPITAL FUND

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out section 21(b) of the Federal Transit Act, administered by the Federal Transit Administration, [$1,000,000,000] *$1,500,000,000*, to be derived from the Highway Trust Fund and to remain available until expended. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
DISCRETIONARY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)
Program and Financing (in thousands of dollars)

Identification code 69-8191-0-7-401		**FY 1993 actual**	**FY 1994 estimate**	**FY 1995 estimate**
	Program by activities:			
00.01	Discretionary grants	1,714,636	1,882,605	1,925,000
00.02	Formula grants	119,111	35,600	...
00.91	Total direct program	1,833,747	1,918,205	1,925,000
10.00	Total obligations, (Object class 41.0)	1,833,747	1,918,205	1,925,000
	Financing:			
17.00	Recovery of prior year obligations	(16,452)	...	...
	Unobligated balance available, start of year:			
21.40	Appropriation	(10,000)	...	...
21.49	Contract authority	(1,065,500)	(983,205)	(850,000)
	Unobligated balance available, end of year:			
24.49	Contract authority	983,205	850,000	650,000
39.00	**Budget authority (gross)**	1,725,000	1,785,000	1,725,000
	Budget authority:			
	Current:			
40.00	Appropriation	1,500,000	1,000,000	1,500,000
40.49	Portion applied to liquidate contract authority	(1,500,000)	(1,000,000)	(1,500,000)
43.00	**Appropriation (total)**	...	...	...
	Permanent:			
69.10	Contract authority (Public Laws 100-17 and 102-240)	1,725,000	1,785,000	1,725,000
	Relation of obligations to outlays:			
71.00	Total obligations	1,833,747	1,918,205	1,925,000
	Obligated balance, start of year:			
72.40	Appropriation	630,781	832,710	381,857
72.49	Contract authority	3,351,570	3,668,866	4,587,071
	Obligated balance, end of year:			
74.40	Appropriation	(832,710)	(381,857)	(269,239)
74.49	Contract authority	(3,668,866)	(4,587,071)	(5,012,071)
78.00	Adjustments in unexpired accounts	(16,452)	...	...
90.00	Outlays	1,298,070	1,450,853	1,612,618

ERRATA

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
DISCRETIONARY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification code 69-8191-0-7-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
00.01	Discretionary grants	1,714,636	1,882,605	1,925,000
00.02	Formula grants	119,111	35,600	...
00.91	Total direct program	1,833,747	1,918,205	1,925,000
10.00	Total obligations, (Object class 41.0)	1,833,747	1,918,205	1,925,000
	Financing:			
17.00	Recovery of prior year obligations	(16,452)	...	...
	Unobligated balance available, start of year:			
21.40	Appropriation	(10,000)	...	...
21.49	Contract authority	(1,065,500)	(983,205)	(850,000)
	Unobligated balance available, end of year:			
24.49	Contract authority	983,205	850,000	650,000
39.00	Budget authority (gross)	1,725,000	1,785,000	1,725,000
	Budget authority:			
	Current:			
40.00	Appropriation	1,500,000	1,000,000	1,500,000
40.49	Portion applied to liquidate contract authority	(1,500,000)	(1,000,000)	(1,500,000)
43.00	Appropriation (total)	...	...	...
	Permanent:			
69.10	Contract authority (Public Laws 100-17 and 102-240)	1,725,000	1,785,000	1,725,000
	Relation of obligations to outlays:			
71.00	Total obligations	1,833,747	1,918,205	1,925,000
	Obligated balance, start of year:			
72.40	Appropriation	630,781	842,711	381,857
72.49	Contract authority	3,351,570	3,658,865	4,587,071
	Obligated balance, end of year:			
74.40	Appropriation	(842,711)	(381,857)	(269,239)
74.49	Contract authority	(3,658,865)	(4,587,071)	(5,012,071)
78.00	Adjustments in unexpired accounts	(16,452)	...	...
90.00	Outlays	1,298,070	1,450,853	1,612,818

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

DISCRETIONARY GRANTS
(HIGHWAY TRUST FUND)
SUMMARY OF BUDGET AUTHORITY AND OUTLAYS
(in thousands of dollars)

Identification code 69-8191-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Enacted/requested:			
Budget Authority	1,725,000	1,785,000	1,725,000
Outlays	1,298,570	1,450,853	1,612,618
Rescission proposal:			
Budget Authority	...	(50,538)	...
Outlays	...	(1,011)	(5,054)
Total:			
Budget Authority	1,725,000	1,734,462	1,725,000
Outlays	1,298,570	1,449,842	1,607,564

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

DISCRETIONARY GRANTS
(HIGHWAY TRUST FUND)
STATUS OF CONTRACT AUTHORITY
(in thousands of dollars)

Identification code 69-8191-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Balance, start of year	4,417,070	4,642,070	5,427,070
Contract authority	1,725,000	1,785,000	1,725,000
Appropriation to liquidate contract authority	(1,500,000)	(1,000,000)	(1,500,000)
Balance, end of year	4,642,070	5,427,070	5,652,070

PROGRAM AND PERFORMANCE STATEMENT

DISCRETIONARY GRANTS

For 1995, a total of $1.5 billion is requested for Discretionary Grants. The $1.5 billion request will be allocated among the following three activities:

Fixed Guideway Modernization. - $760 million for the acquisition, reconstruction and improvement of facilities and equipment for use on fixed guideways including heavy and light rail, commuter rail, and ferry boat operations.

New Starts. - $400 million for the construction of new fixed guideway systems and extensions to existing fixed guideway systems. This will fund all projects that are currently under Full Funding Grant Agreements (FFGA).

Bus and bus-related facilities. - $327 million for the replacement, rehabilitation and purchase of buses and related equipment and the construction of bus-related facilities. This funding will assist public transit authorities in meeting the requirements of the Clean Air Act Amendments and the Americans with Disabilities Act.

Livable Communities. - $30 million will be available for capital projects to urban and rural communities that integrate transit service into community development by adopting zoning, land-use, and urban design principles that provide for transit friendly service. These localities will receive supplemental transit grants that can be used for such projects as small circulator systems, park-and-ride lots and pedestrian walkways.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

DISCRETIONARY GRANTS
(Mass Transit Account of the
Highway Trust Fund)

Comparative Summary of Activity
(Dollars in Thousands)

	FY 1993 Enacted	FY 1994 Enacted	FY 1995 Request
Budget Authority:			
Contract Authority	$1,725,000	$1,785,000	$1,725,000
Appropriation	-	-	-
Total BA	$1,725,000	$1,785,000	$1,725,000
Obligation Limitation:	$1,725,000	$1,785,000	$1,517,000
Fixed Guideway Mod.......	(666,255)	(760,060)	(760,000)
New Starts......................	(721,805)	(667,940)	(400,000)
Bus and Bus-related.........	(336,940)	(357,000)	(327,000)
Livable Communities........	0	0	(30,000)
Liquidating Cash:			
Appropriation	(1,500,000)	(1,000,000)	(1,500,000)

For FY 1995, the ISTEA authorizes $1.725 billion in trust funded contract authority and $325 million in general funds for Discretionary Grants for a total of $2.050 billion. The FTA requests an obligation limitation of $1.517 billion against the contract authority provided in ISTEA.

The $1.517 billion requested for FY 1995 will be focused on rebuilding infrastructure and, therefore, will not be allocated at the 40-40-20 statutory percentages established in ISTEA. In addition, a new initiative, the Livable Communities Initiative, will be included in the Discretionary Grants Program. The FY 1995 allocation will be as follows: $760 million for Fixed Guideway Modernization projects, $400 million for New Starts, $327 million for Bus and Bus-related activities, and $30 million for Livable Communities.

The Livable Communities Initiative is a multifaceted Federal Transit Administration program designed to encourage the development of transit facilities and systems that support community based efforts to address such issues as job creation and training, improvement of local social services (such as health care, day care, education, and other fundamental services) and improved access to these services. This will be accomplished by targeting resources to areas that have demonstrated a commitment to developing community-based plans which integrate and coordinate transit planning with land-use and community development planning. The funds will be used to fund capital projects in support of the Livable Communities Initiative.

The FY 1995 allocation also reflects the Administration's commitment to upgrade rail facilities and equipment, to accelerate the elimination of the rail modernization backlog, and to rehabilitate key stations to meet the ADA requirements. In addition, the funding level for New Starts reflects the FY 1995 funding needs of projects currently under Full Funding Grants Agreements (FFGA).

The Federal match for Discretionary Grants is 80 percent, with State and local governments required to fund 20 percent of project costs. However, the Federal share is 90 percent for the incremental costs of bus-related equipment needed to meet the requirements of the Clean Air Act (CAA) and the Americans with Disabilities Act (ADA).

A takedown of 3/4 of one percent consistent with Section 23 of the Federal Transit Act, as amended, is planned for project management oversight, and safety, procurement, management and financial compliance reviews and audits.

Fixed Guideway Modernization (previously Rail Modernization)

The section 3 Fixed Guideway Modernization funding level of $760 million, along with section 9 funds available for fixed guideway modernization, and the State and local matching resources, is sufficient to maintain fixed guideway conditions and maintain performance. Further, this level of funding will assist in defraying the one-time capital costs of $900 million, over 30 years, required to make over 700 rapid rail, light rail, and commuter rail key stations accessible to disabled persons. Most of this cost will be borne over the six year period 1993 through 1998, at about $100 million each year.

The Fixed Guideway Modernization funding is apportioned to public transportation facilities that utilize a separate right-of-way or rails, including rapid, light, and commuter rail systems, exclusive facilities for buses and high occupancy vehicles, and ferry boat operations. These funds are apportioned according to a statutory prescribed formula with four tiers. Tiers 1 and 2 allocate the first $497.7 million to eleven legislatively specified fixed guideway areas. Tier 3 allocates one-half of the next $70 million to the specified eleven urbanized areas. The remaining one half is allocated to all other urbanized areas with fixed guideways at least 7 years old on the basis of the section 9 fixed guideway tier formula factors. Tier 4 allocates the remaining funds to all of these urbanized areas in accordance with the section 9 formula for the fixed guideway tier. If the amount made available is less than the sum of the first two tiers, or $497.7 million, then the funding is to be apportioned to all of the areas eligible for tiers 1 and 2 on a proportional basis.

After the 3/4 of one percent takedown for oversight activities, $754.3 million remains to be apportioned. Thus, funding will be apportioned according to the requirements for all four tiers. Listed below are the areas that receive funding, and the overall percentage they will receive from all tiers. The first group are those legislatively specified areas with historic rail systems. The second group consists of all other areas with fixed-guideways in operation for at least seven years.

Legislatively specified areas:	Percentage	$ Amount In Millions*
Baltimore	1.76%	$ 13.3
Boston	6.97	52.6
Chicago/Northwestern Indiana	14.10	106.4
Cleveland	1.43	10.8
New Orleans	0.29	2.2
New York	35.10	264.8
Northeastern New Jersey	8.86	66.8
Philadelphia/Southern New Jersey	10.09	76.1
Pittsburgh	2.03	15.3
San Francisco	6.59	49.7
Southwestern Connecticut	4.25	32.0
Subtotal	91.47%	$690.0
All other fixed guideway areas:	8.53%	$ 64.3
Total Apportionment	100.00%	$754.3
Section 23 set-aside		5.7
Total Fixed Guideway		$760.0

*Amounts are estimates based on currently available Section 15 data. Actual figures for FY 1995 will be calculated using the most recent section 15 data available at the time of apportionment.

New Starts

A total of $400 million of the requested $1.517 billion obligation limitation will be available for new fixed guideway systems and extensions to fixed guideway systems (New Starts). After setting aside 3/4 of one percent of these funds for oversight activities, $397 million is available for project grants. The FY 1995 New Starts allocation will be as follows: $184.3 million for the Los Angeles Metro Rail (MOS-3) Project, $111.7 million for the Portland Westside Light Rail Transit Project, $33.77 million for the Dallas South Oak Cliff Light Rail Project, $62.54 million for the New York Queens Connection Project, and $4.69 million for St. Louis Airport Project. FTA has Full Funding Grant Agreements (FFGA) for these projects and will accelerate their funding in order to minimize inflationary costs and other expenses associated with prolonged completion schedules.

Bus and Bus-related Projects

A total of $327 million is available for capital projects for bus and bus related improvements. After the 3/4 of one percent takedown for oversight activities, $324.5 million remains available for allocation.

As in the past, these funds will be used to supplement the Sections 9 and 18 Formula Grants program. Once grantees have developed program plans utilizing their Formula Grants apportionments for FY 1995, decisions can be made on how best to allocate Section 3 bus funds. Because of limited capital formula funds in FY 1993, a backlog of bus grants was created. The demand for Section 3 discretionary bus funds is currently over $930 million, as areas of all sizes seek discretionary funds to supplement formula capital dollars, and to comply with Federal mandates and ISTEA goals. The $327 million requested for discretionary bus projects, together with the proposed $650 million increase in formula capital grants, will address this backlog. These funds will be used to purchase equipment necessary to comply with the requirements of the Clean Air Act and the Americans with Disabilities Act.

Bus and Bus-related funds in FY 1995 will continue to fund bus projects contained in the ISTEA authorization, including the Federal share of bus testing fees charged for testing a vehicle at the Bus Testing Facility - $2 million (Section 3009 of ISTEA), and the State of Michigan Bus Project - $10 million (Section 3035(kk) of ISTEA).

In addition, bus and bus-related projects will fund bus purchases in non-urban areas, and help regional mobility by supplying start-up capital assistance for neighborhood-based and community transit services to be provided by neighborhood and civic groups, business communities, and a variety of transit operators. This includes providing assistance to projects associated with the Livable Communities Initiative.

Bus and bus-related funding will support the introduction of newly designed buses and bus technology into the public transit markets. This will provide better designed, more efficient running vehicles to help meet the air-quality and emmission standards dictated by the clean air legislation. In addition, FTA would continue to fund alternative fueled vehicles and conversions of maintenance facilities to allow natural gas, methanol, ethanol, or LPG fueled buses.

Under the Transit Planning and Research program (TPR) FTA funds the development and demonstration of more efficient vehicles and equipment. Once these technologies are fully developed, they are eligible for Section 3 bus and bus-related funding. In FY 1995, FTA will continue to introduce into public transit service fuel cell/battery propulsion buses being developed under the TPR Clean Air Program. These energy efficient transit vehicles and the electric transit vehicles developed under the ISTEA mandated Advanced Transportation Systems and Electric Vehicles Research and Development Program will be ready to be deployed in transit service.

FTA will continue to equip transit operations with advanced communications technology developed as part of the Advanced Public Transit Systems (APTS) activity under the TPR program. APTS technology provides transit users with current information on traffic conditions, transit routes and schedules, carpool/vanpool options, alternative routes, etc. APTS applies many technologies developed by defense contractors to increase passenger service, increase operational efficiency, and decrease operating costs. This is a solid example of defense developed technologies being converted to transit use.

Livable Communities Initiative

A total of $30 million of the $1.517 billion requested will be available for the Livable Communities Initiative. The Livable Communities Initiative is a multifaceted Federal Transit Administration program designed to encourage the development of transit facilities and systems that support community based efforts to address such issues as job creation and training, improvement of local social services (such as health care, day care, education, and other fundamental services) and improved access to these services. This will be accomplished by targeting resources to areas that have demonstrated a commitment to developing community-based plans which integrate and coordinate transit planning with land-use and community development planning.

The FTA's Livable Communities Initiative includes three elements. The first two elements will be funded through existing TPR Section 26 programs, the third component will be supported by $30 million in Section 3 monies made available for Livable Communities Initiative capital grants.

The first component is a planning element to assist participating communities with all aspects of transit planning and to aid these communities in their efforts to coordinate the transit planning process with land-use planning and community development planning. The second is a technical assistance component that includes support for research, planning, and technical assistance activities.

The third component is a capital grants element that will provide $30 million in incentive grants to transit agencies, and various local and State organizations for their projects that reflect the goals of the FTA Livable Communities Initiative. Livable Communities grants will be used as an incentive to encourage transit providers to incorporate the goals of the Livable Communities Initiative into their projects. Livable Communities monies will generally be available as a supplement for approved projects receiving grants via Section 8, 9, 18, or 3 programs, grants under the congestion mitigation, air quality, and surface transportation programs of ISTEA, and other Federal programs.

The goals of the Livable Communities Initiative include the following:

1) To use transit as a tool to empower residents of distressed communities through assistance with local planning and improved access to employment, job training sites, and community service centers (day care, health care, educational facilities, etc.). Intrinsic to success will be the strengthening of linkages between transit and land-use/community development planning;

2) To promote user-friendly and security oriented transit projects that will meet the needs of residents of the targeted areas.

3) To provide capital grants for such activities as:
  - Improved transit service;
  - Transit centers and bus stops that might include day care facilities;
  - Transit related items such as pedestrian walkways, bike racks, landscaping, etc.

4) To stimulate greater involvement in the local planning and design process by neighborhood organizations, small and minority businesses and other stakeholders who are not currently participants in the process; and

5) To serve as a companion program to the President's Empowerment Zones (EZ), Enterprise Communities (EC) and Rural Investment initiatives.

In the case of urban redevelopment, Livable Communities are created when isolated pockets of poverty become neighborhoods where housing, schools, and parks are within walking distance of user-friendly transit opportunities that link residents with local social and economic services and, most importantly, with jobs. The Livable Communities Initiative reflects FTA's belief that investments in transit must be supported by land use patterns which put affordable housing and jobs within walking distance of transit stations.

If transit stations are planned in coordination with the larger community development planning process, transit stations could also be designed to provide space for social services, such as daycare centers, or other essential services identified through the community participation process. This would help to dovetail the transit system with the needs of the local citizens and would consequently raise the levels of ridership.

Such a coordination of transit planning and land-use/community development planning would benefit the residents of distressed areas in the following ways: 1) It would end their economic isolation by linking them to the economic life of the larger community, 2) It would improve their access to essential social services, and 3) It would save them dollars by allowing them to use their automobiles less. While being rooted in economic considerations, the localized decrease in automobile dependence would also result in environmental protection and quality of life enhancement. A comprehensively planned system would also provide riders with access to regional line-haul transit.

In addition to urban redevelopment areas, Livable Communities grant monies will also be available to rural transit projects and new start projects that reflect the goals of the Livable Communities Initiative. Transit enterprises in all locations must be encouraged to link transit planning with land-use and community development planning in a manner that utilizes a high degree of community participation. Only in this way can transit play its full part in helping local communities reach their economic, social, and environmental goals.

In FY 1995, entities wishing to receive moneys in connection with the Livable Communities Initiative will have to demonstrate that the proposed projects will provide significant transit benefits to the residents of the host community, in the form of improved access to job sites and various social and economic service locations. As increased linkage to land-use/community development planning is an objective of this program, proposed projects will need to demonstrate that they are linked to larger, comprehensive plans that include such community focused goals as job creation and the provision of improved social services. Additionally, evidence of a high level of community participation in the planning and project development process will have to be provided, as will documentation of substantial small and minority business participation in the planning, design, and implementation phases of the project. Additionally, FTA will be seeking assurances regarding financial viability, and environmental and social impacts.

APPROPRIATION LANGUAGE

TRUST FUND SHARE OF TRANSIT PROGRAMS

(LIQUIDATION OF CONTRACT AUTHORIZATION)

(HIGHWAY TRUST FUND)

For payment of obligations incurred in carrying out section 21(a) of the Federal Transit Act, [$1,195, 000,000] *$1,150,000,000*, to remain available until expended and to be derived from the Highway Trust Fund: *Provided*, [That $18,162,000 shall be paid from the Mass Transit Account of the Highway Trust Fund to the Federal Transit Administration's administrative expenses account: *Provided further*,] That [$1,129,951,000] *$1,150,000,000* shall be paid from the Mass Transit Account of the Highway Trust Fund to the Federal Transit Administration's formula grants account[: *Provided further*, That $2,762,000 shall be paid from the Mass Transit Account of the Highway Trust Fund to the Federal Transit Administration's university transportation centers account: *Provided further*, That $44,125,000 shall be paid from the Mass Transit Account of the Highway Trust Fund to the Federal Transit Administration's transit planning and research account]. *(Department of Transportation and Related Agencies Appropriations Act, 1994.)*

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRUST FUND SHARE OF TRANSIT PROGRAMS
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification code	**69-8350-0-7-401**	**FY 1993 actual**	**FY 1994 estimate**	**FY 1995 estimate**
	Program by activities:			
00.01	Administrative Expenses	25,150	18,162	...
00.02	University Transportation Centers	3,975	2,762	...
00.03	Transit Planning and Research	56,000	44,125	...
00.04	Formula Grants	1,049,025	1,129,951	1,150,000
10.00	Total obligations (Object class 25.2)	1,134,150	1,195,000	1,150,000
	Financing:			
21.49	Unobligated balance available, start of ye	...	(15,850)	(10,850)
24.49	Unobligated balance available, end of yea	15,850	10,850	10,850
39.00	Budget authority	1,150,000	1,190,000	1,150,000
	Budget authority:			
	Current:			
40.00	Appropriation	1,134,150	1,195,000	1,150,000
40.49	Portion applied to liquidate contract aut	(1,134,150)	(1,195,000)	(1,150,000)
43.00	Appropriation (total)	...	...	...
	Permanent:			
69.10	Contract authority	1,150,000	1,190,000	1,150,000
	Relation of obligations to outlays:			
71.00	Total obligations	1,134,150	1,195,000	1,150,000
72.49	Obligated balance, start of year	...	516,559	...
74.49	Obligated balance, end of year	(516,559)	...	...
90.00	Outlays	617,591	1,711,559	1,150,000

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRUST FUND SHARE OF TRANSIT PROGRAMS
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification code 69-8350-0-7-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
00.01	Administrative Expenses	25,150	18,162	...
00.02	University Transportation Centers	3,975	2,762	...
00.03	Transit Planning and Research	56,000	44,125	...
00.04	Formula Grants	1,049,025	1,129,951	1,150,000
10.00	Total obligations (Object class 92.0)	1,134,150	1,195,000	1,150,000
	Financing:			
21.49	Unobligated balance available, start of ye	...	(15,850)	(10,850)
24.49	Unobligated balance available, end of yea	15,850	10,850	10,850
39.00	Budget authority	1,150,000	1,190,000	1,150,000
	Budget authority:			
	Current:			
40.00	Appropriation	1,134,150	1,195,000	1,150,000
40.49	Portion applied to liquidate contract aut	(1,134,150)	(1,195,000)	(1,150,000)
43.00	Appropriation (total)	...	...	...
	Permanent:			
69.10	Contract authority	1,150,000	1,190,000	1,150,000
	Relation of obligations to outlays:			
71.00	Total obligations	1,134,150	1,195,000	1,150,000
72.49	Obligated balance, start of year	...	516,559	...
74.49	Obligated balance, end of year	(516,559)	...	...
90.00	Outlays	617,591	1,711,559	1,150,000

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
TRUST FUND SHARE OF TRANSIT PROGRAMS
Status of Contract Authority
(in thousands of dollars)

Identification code 69-8350-0-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Balance, start of year	...	15,850	10,850
Contract authority	1,150,000	1,190,000	1,150,000
Appropriation to liquidate contract authority	(1,134,150)	(1,195,000)	(1,150,000)
Balance, end of year	15,850	10,850	10,850

PROGRAM AND PERFORMANCE STATEMENT

TRUST FUND SHARE OF TRANSIT PROGRAMS

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) authorizes a combination of both trust and general funding for the four FTA appropriations shown above. In FY 1995, however, only Formula Grants is proposed to be funded from both trust funds and general funds.

The language appropriating the amount reflected in this account as well as the program and performance narrative statement appears with the Formula Grants account.

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
STATUS OF THE MASS TRANSIT ACCOUNT OF THE HIGHWAY TRUST FUND

(in thousands of dollars)

	FY 1993 Actual	FY 1994 Estimate	FY 1996 Request
Cash balance, start of year	9,798,159	10,617,371	10,126,070
Cash income during the year, Governmental receipts:			
Motor fuel taxes	1,992,371	1,980,000	2,017,000
Interest on investments	742,502	690,100	556,900
Total annual income	2,734,873	2,670,100	2,573,900
Cash outlays during the year:			
Discretionary Grants	1,298,070	1,449,842	1,607,564
Trust fund share of Transit programs	617,591	1,711,559	1,150,000
Total annual outlays	1,915,661	3,161,401	2,757,564
Cash balance, end of year	10,617,371	10,126,070	9,942,406
Commitments*	(6,017,189)	(5,780,251)	(5,897,687)
Cash in excess of commitments	(4,600,182)	(4,345,819)	(4,044,719)

*Includes FY 1994 rescission proposal.

RESCISSION PROPOSAL

DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
DISCRETIONARY GRANTS
(LIQUIDATION OF CONTRACT AUTHORIZATION)
(HIGHWAY TRUST FUND)

Program and Financing (in thousands of dollars)

Identification code 69-8191-5-7-401	FY 1993 actual	FY 1994 estimate	FY 1995 estimate
Program by activities:			
10.00 Total obligations, (Object class 41.0)		(50,538)	
Budget authority:			
Permanent:			
49.36 Unobligated balance rescinded		(50,538)	
Relation of obligations to outlays:			
71.00 Total obligations		(50,538)	...
Obligated balance, start of year:			
72.40 Appropriation		...	1,011
72.49 Contract authority		...	(50,538)
Obligated balance, end of year:			
74.40 Appropriation		(1,011)	(6,065)
74.49 Contract authority		50,538	50,538
90.00 Outlays		(1,011)	(5,054)

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Federal Funds

General and special funds:

INTEREST PAYMENTS *AND REPAYMENTS OF PRINCIPAL*

For [necessary expenses for interest payments, to remain available until expended, $51,663,569: *Provided*, That these funds shall be disbursed pursuant to terms and conditions established by] *payment of obligations incurred pursuant to* Public Law 96-184 and the Initial Bond Repayment Participation Agreement, *$664,666,667, to remain available until expended, which shall be used only to repay principal to the Federal Financing Bank for the Washington Metrorail construction loan; and in addition, such amounts as are necessary for payment to the Federal Financing Bank of accrued interest and premium, if any, for such loan. (Department of Transportation and Related Agencies Appropriations Act, 1994.)*

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
Federal Funds
Interest Payments
Program and Financing (in thousands of dollars)

Identification code 46-0300-0-1-401		FY 1993 actual	FY 1994 estimate	FY 1995 estimate
	Program by activities:			
10.00	Total obligations (object class 41.0)	51,664	46,937	13,920
	Financing:			
21.40	Unobligated balance available, start of year: Treasury balance	...	...	(4,727)
24.40	Unobligated balance available, end of year Treasury balance	...	4,727	...
39.00	Budget authority (gross)	51,664	51,664	9,193
	Budget authority:			
40.00	Appropriation	51,664	51,664	664,667
40.05	Appropriation (indefinite)	...	...	9,193
40.47	Portion applied to debt reduction	...	...	(664,667)
43.00	Appropriation (total)	51,664	51,664	9,193
	Relation of obligations to outlays:			
71.00	Total obligations	51,664	46,937	13,920
72.40	Obligated balance, start of year: Treasury balance	26,346	25,131	25,131
74.40	Obligated balance, end of year: Treasury balance	(25,131)	(25,131)	(25,131)
90.00	Outlays	52,879	46,937	13,920

PROGRAM AND PERFORMANCE STATEMENT

WASHINGTON AREA METROPOLITAN TRANSIT AUTHORITY

The Washington Metropolitan Area Transit Authority (WMATA) is a non-Federal agency established pursuant to an interstate compact among Maryland, Virginia, and the District of Columbia. The Authority's primary functions are to plan, develop, finance, and construct the Metrorail rapid transit system and to operate the bus/rail transit system in the National Capital area. The rail system extends from the District of Columbia into the participating jurisdictions of Maryland and Virginia.

Through 1994, this WMATA account provides the annual Federal share (two-thirds) of interest payments on outstanding WMATA bonds sold in support of the rail construction program. The WMATA bonds, which totaled $997 million, were guaranteed by the Federal Government and were to become due beginning in the year 2012. In September 1979, WMATA and the Department of Transportation approved an Initial Bond Repayment Participation Agreement providing for an overall two-third Federal and one-third local sharing of the interest and principal costs of the bonds. In August 1982, this agreement was reaffirmed in a supplement to the agreement.

In December 1993, the WMATA bonds were refinanced in order to take advantage of lower interest rates. In order to refinance the bonds, the original bonds were called in prior to maturity and paid off. The funds necessary to pay off the original bondholders were raised in two ways: (1) WMATA issued new, non-Federally guaranteed , municipal bonds to pay off its one-third share of the original bonds; and (2) the Department of Transportation borrowed $665 million from the Federal Financing Bank (FFB) to pay off the Federal two-thirds share of the original bonds. Therefore, as a result of the refinancing, WMATA and the Federal Government no longer share responsibility for repayment of $997 million in debt. Instead, WMATA has assumed complete responsibility for repaying its one-third share ($332 million) of the debt and the Federal Government retains complete responsibility for repaying its two-thirds share ($665 million) of the debt.

In FY 1995, an appropriation of $665 million is requested to repay the principal owed by the Department of Transportation to the FFB. This appropriation would not constitute authority to incur new obligations. In addition, an indefinite appropriation is requested in FY 1995 to pay any necessary interest and prepayment penalties to the FFB. Interest costs are estimated to be $14 million.

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